

CONTENT:

**SILKON PRODUCT BROCHURE
CERTIFICATE OF INCORPORATION
IMPORT AND EXPORT CERTIFICATE
ISO 9001:2015 CERTIFICATE
PRODUCT APPROVALS
PURCHASE ORDER
THIRD PARTY TEST REPORT
PRODUCT TECHNICAL DATA SHEET**



SILKON
ADDITIVES INDIA PVT LTD

FOR CONTACT : 18001236299, INFO@SILKON.CO.IN



SILKON
ADDITIVES INDIA PVT LTD

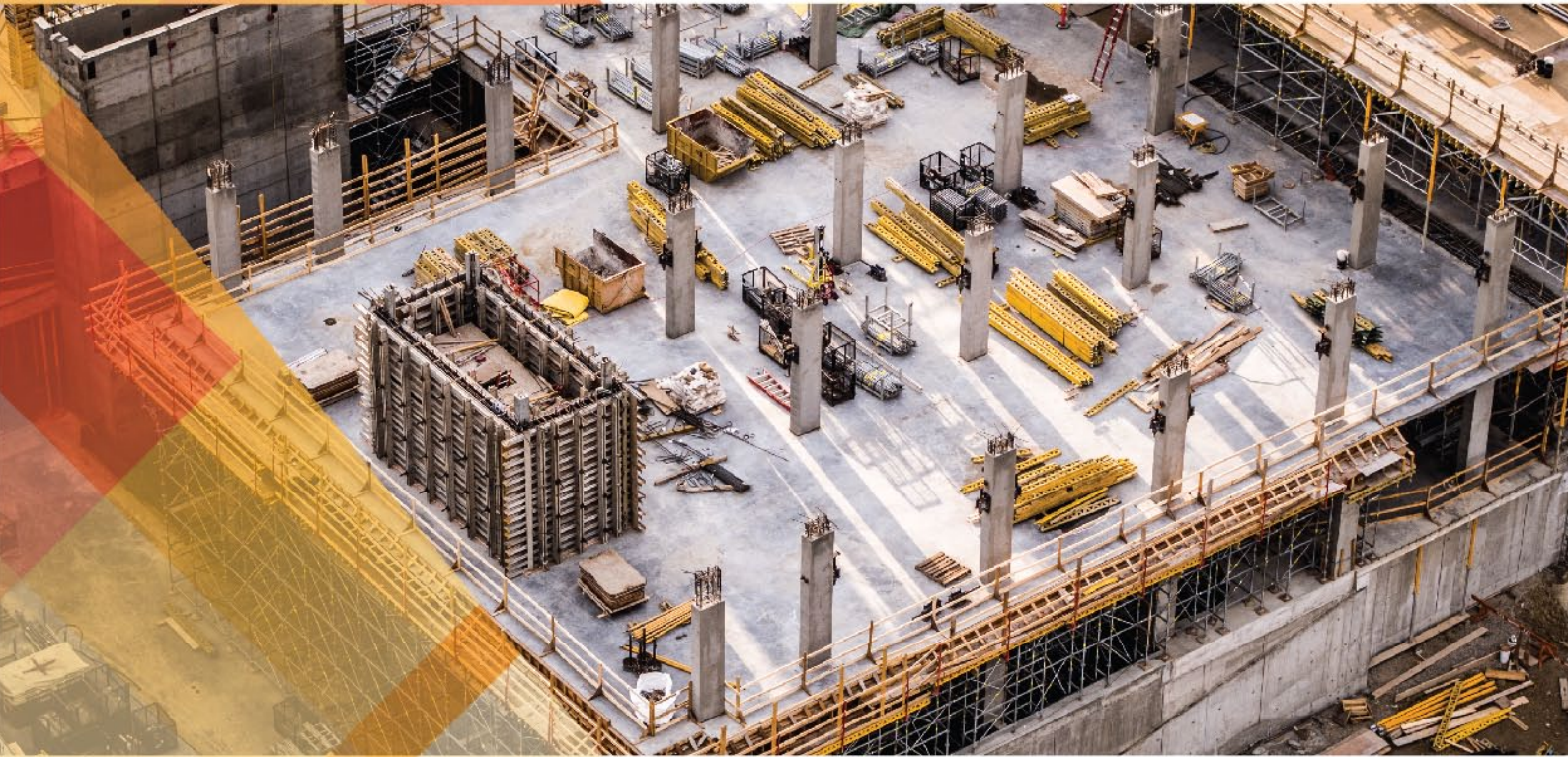
ABOUT US



SILKON is a brand of Silkon Additives, a manufacturing unit of construction chemicals that are used to maintain the strength of old as well as new construction with top most quality and durability. Our highly Specialized technical team takes pride in working with utmost commitment & dedicated towards providing a world class product. We believe in customer centric approach and thus our efforts are constantly aimed at providing quality products.



VISION



Silikon Additives aspires to be a pioneer in construction chemical manufacturing, providing world class products & solutions globally with customer satisfaction being the key goalpost of all our endeavours making it an experiential customer service platform.



SECTOR WE SERVE



Highway Projects, Residential Projects, Commercial Towers, High Rise Buildings Project, Ready Mix Concrete Plants, Hydle Projects, Metro projects, IOCL and other segments of Infrastructure Development in the Country.



SERVICES



We provide Value Added Services. With excellent workmanship & utmost loyalty towards our patrons, we aim at providing high quality service to our clients & associates.

Construction Chemicals :
Manufacturing the entire range of pre & post construction chemicals used at various stages of infrastructure development and serving various sectors.

Quality Management :
Design Mix, Checking all quality aspects of the fresh and hardened concrete properties. Providing instant field solution to the site quality representative in case of value added concrete manufacturing.



RESEARCH & DEVELOPMENT



The key to our success is our ability to generate innovative products and capability at the forefront of the industries. R&D Is the backbone of all Silkon products. We at Silkon always adhere to continuous development of future products through a constant stream of innovations. Our state-of-the-art manufacturing and testing facilities help us to develop world class quality products for our customer with the most competitive pricing. Innovation, efficiency and efficacy drive our operations at all levels of functioning



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Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silkon Micro Silica	super pozzolan - a finely powdered material, containing amorphous (reactive) silica,	Silkon Micro Silica is a super pozzolan - a finely powdered material, containing amorphous (reactive) silica, when added to wet concrete mix, it results in better quality and durability and it gives higher strength. It complies with ASTM C1240 & IS 15388.	The normal dosage range is between 5 to 10 Kgs/100 kg of cementitious material.	25 Kg Bags
Supermix PC350	High range superplasticising admixture. Complies with IS:9103:1999 and BS 5075 Part 3, it also conforms to ASTM C-494 Type F and Type G depending on the dosage used	Speeds up construction, increases workability and cohesion, aids pumping by reducing line friction and dry packing, low porosity resulting in sustainability improved water penetrartion resistance.	0.5 to 1.5 liter per 100 kg of total cementitious material.	20 Kg, 200 Kg & 250 Kg Drum & Bulk Supply
Supermix PC450	Advanced low viscosity high performance superplasticiser, based on polycarboxylic technology. Supermix PC450 complies with IS:9103-1999(2007). It also complies with ASTM C494 Type G.	Supermix PC450 Is a High performanvce superplasticiser intended for applications where high water reduction and long workability retention are required, and it has been developed for use in: Self-compacting concrete, Pumped concrete, Concrete requiring long workability retention.	0.40 to 2 percent By Weight of total cementitious material.	20 Kg, 200 Kg & 250 Kg Drum & Bulk Supply
Supermix PC550	Advanced low viscosity high performance superplasticiser, based on polycarboxylic technology. Supermix PC550 complies with IS:9103-1999(2007). It also complies with ASTM C494 Type G.	Supermix PC550 Is a High performanvce superplasticiser intended for applications where high water reduction and long workability retention are required, and it has been developed for use in: Self-compacting concrete, Pumped concrete, Concrete requiring long workability retention.	0.40 to 2 percent By Weight of total cementitious material.	20 Kg, 200Kg & 250 Kg Drum & Bulk Supply
Supercast PC50	Advanced low viscosity superplasticiser, based on polycarboxylic technology for concrete precast industries.	High performance precast super plasticiser intended for applications where reduction in cycle time and early strength are required.	0.5 to 3 percent by weight of total cementitious material.	20 Kg, 200Kg & 250 Kg Drum & Bulk Supply



GROUTS

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Lapkon G3	Non shrink cementitious grout. Complies to ASTM C 1107 Type A.	Static load applications like steel column foundation, pipe rack foundations and equipments with only static load.	12.5 Ltrs / 25 kgs bag @ Flowable Consistency	25 kg Bag
Lapkon G5	Plastic shrinkage compensated, high flow, high strength cementitious grout. Complies to ASTM C 1107 Type A.	Machine foundation grout with both Static & dynamic loads, bridge bearings, precast construction etc.	13.3 Ltrs / 25 kgs bag @ Flowable Consistency	25 kg Bag
Lapkon LV	Low Viscosity epoxy injection grout.	Structural crack repair	Refer Datasheet	1 Liter
Lapkon HSG	High flow, high early & ultimate strength epoxy grout suitable for grouting thickness upto 75 mm. Complies to ASTM C 1181	Machine base grouting of heavy duty compressors, rail plates in ballastless track.	Refer Datasheet	14 Liters



REPAIR

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silplast R15	Shrinkage compensated, free flow, structural grade microconcrete for concrete repairs and strengthening.	For repair to damaged reinforced concrete elements particularly where access is restricted and where vibration of the placed material is difficult or impossible. Suitable for various structural strengthening measures such as encasements build-ups etc.	13 litres/25Kg @ W/P 0.16	25 kg Bag
Silplast R20	Shrinkage compensated, free flow, general purpose, microconcrete for concrete repairs.	Elements, particularly where access is restricted and where vibration of the placed material is difficult or impossible. Suitable for various structural strengthening measures such as filling honeycombs and cracks.	Approximately 13.5 litres per 25 kgs bag	25 kg Bag
Silplast RS	Rapid setting cement based waterleak plugging mortar.	For the rapid temporary patching and plugging of concrete segments, concrete and brick tunnel linings, sewage systems, below ground access chambers.	-	1 & 5 Kg
Silplast PM15	Structural grade prepacked cement mortar.	Reinstatement of spalled concrete members like beams, columns, walls etc.	1.3 m ² at 10mm thickness per 25.25 kg bag	Powder 25 Kg, Liquid 0.25 Kg
Silplast PMF100	Single component, fibre reinforced, high strength, shrinkage compensated, polymer modified structural grade repair mortar (M 80 grade).	Silplast PMF100 is suitable for hand and spray application for repairs where high load bearing is required. Typical applications would include, but not be limited to Vertical and overhead repairs to restore 'covercrete'. General concrete and masonry	13.4 litres per 25 kgs bags	25 kg Bag



FLOORING

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silfloor FH	Non mettalic, dry shake on floor hardeners.	Ideally suited for all industrial and commercial floors subjected to the heavy abrasion / wear suitable for flooring applications in heavy engineering industry, warehouses & car parking.	Application rate kg/m2 Heavy Duty 7.0 Medium Duty 5.0 Light Duty	25 kg Bag
Silfloor UL6	1.5 mm - 6mm thick self - smoothing epoxy based underlay.	A self smoothing epoxy screed recommended as an underlay prior to application of epoxy/PU based floor toppings.	7.5 m2/ Pack @ 2 mm thickness	15 liters
Silfloor SFC	High build solvent free epoxy resin based floor coating.	Provides a high build, hardwearing, chemical and abrasion resistant floor finish.	4 m2 / ltr @ 250 Microns WFT per coat recommended application two coats	
Silfloor SBC	Epoxy resin based solvented floor sealer with high chemical & abrasion resistance.	The recommended uses are in production assembly areas, dairies, soft drinks production and bottling plants, breweries, kitchens, showrooms, aircraft hangers, dust proof rooms etc. Also used as colored sealer coat for screeds	45 m2 / pack / coat @ 45 microns DFT Recommended in minimum two coats @ 90 Mic. DFT	4.5 Liters
Silfloor SS1 Silfloor SS2 Silfloor SS3 Silfloor SS4	0.5 - 4 mm thick self smoothing seamless epoxy floor toppings.	Ideal for industrial floors where a hardwearing, hygienic, dust free environment is important, Useful for hospital clean rooms, electronic assembly plants, engineering & manufacturing industries.	Refer datasheet	15 Liters

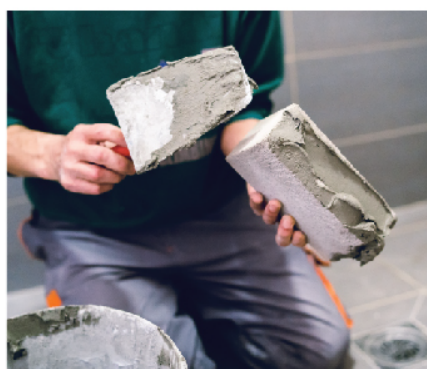


SEALENT

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silkon PS-500	Two part polysulphide sealant.	It is particularly recommended for sealing structural expansion joints in most civil engineering structures like building superstructures, subways, basements, floors and reservoirs.	Refer datasheet. Dependent on joint size.	2.5 Liters
Silkon PU200	Cold applied, high performance, fuel resistant, pitch and pitchfree polyurethane sealant.	For sealing joints in concrete joints in concrete roads, concrete runways. Also suitable for sealing concrete joints where fuel and oil spillage might occur like runways, oil terminals, parkings and cargo areas.	Refer datasheet. Dependent on joint size.	3.0 Liters

ADHESIVES

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Superbond SBR	Styrene butadine polymer bonding agent cum cement mortar & concrete modifier.	Used to modify the concrete for repairing distressed RC members and to modify mortars as waterproofing.	Approximately 4- 5 m ² / litre depending on substrate porosity.	1, 5 & 20 Liters
Superbond AB	Acrylic emulsion cement modifier and concrete bonding agent.	Recommended as a primer for the Silkon cementitious repairs system for improving bonding in renders and mortars, repair of worn, damaged or spalled concrete.	6-8 m ² /litre.	1, 5 & 20 Liters
Superbond BA	Solvent free epoxy bonding agent for joining old and new concrete	For bonding new cementitious material to existing cementitious surfaces. For use on horizontal surfaces and on vertical surfaces where mortar or concrete can be supported by formwork. Ideal for extensions and repairs structural concrete in industrial, residential and commercial buildings	0.5, 1 & 4 Liter pack.	0.5, 1 &



WATERPROOFING

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silproof EC	Elastomeric cementitious coating with inherent crack-bridging ability.	Silproof EC provides a cementitious, elastomeric coating typical applications include: Potable water retaining structures & excluding structures. Internal basement waterproofing. Drainage culverts, bathrooms, shower rooms. Foundations in contact with ground water under saline conditions.	Coverage (at nimal 1 mm thickness) Roller, trowel application: 10.8-11.7 m ² per 23 kg Spray application: 9.0-11.7 m ² per 23 kg	18 kgs + 5 kgs = 23 kg
Silcrete	Single component polymer for cement based waterproofing.	Silcrete polymer in conjunction with cement provides a seamless waterproof coating to concrete and masonry surfaces.	4.5 to 5.0 m ² / L / coat.	0.5, 1, 5 & 20 litres
Silproof PU800	Liquid applied single component elastomeric waterproofing membrane.	For a wide range of waterproofing applications such as suspended floors, car decks, roof terraces, balconies, precincts, inspection pits, water retaining structures (not potable water), Sewage works and inverted roofs.	0.76 m ² /litre @1.3 mm	20 Liters



PROTECTIVE COATING

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silcoat SB500	Ready to use colourless silicone water repellent.	To provide a water repellent with improved self cleaning properties on exteriors of buildings, brick work, concrete, cement rendering, natural or cast stone.	4.5 - 9m2/litre	1, 5 & 20 Liters
Silkon Zink Primer	Two component, epoxy-zinrich corrosion protection primer for reinforcement and fabrication steel	Silkon Zink Primer is recommended for priming exposed steel reinforcement for use with Silkon concrete repair mortars. The product actively resists corrosion within the confines of the repair location and avoids the generation of incipient anodes in immediately adjacent locations.	4 -5 m2/litre	1 & 5 Liter pack
Silkon Anticarbonation Paint	High performance, pure aliphatic acrylate based protective and decorative exterior antocarbonation coating system for concrete and masonry for bridges, industrial structures and buildings.	Recommended as a protective and decorative coating for atmospherically exposed RC structures from long term protection. It is ideally suited for soffit of bridge decks, RC frames in high rise buildings and similar expensive infrastructures. Can be used both in repaired and new construction situations.	5 -6 m2/litre/coat	5, 20 litres



SURFACE TREATMENT

Product Name	Product Description	Usage of Product	Dosages/Covergae/Yield	Pack Size
Silkon RR	Rust remover, cleaning and etching agent.	Silkon RR is used as a rust remover from steel bars prior to encasing in concrete / microconcrete. It can also be used on other steel surfaces prior to coating with epoxy systems.	Approx. 2.0 - 2.5 m2/L	0.5, 1 and 5 litre
Silkon EA	Hardened concrete remover, cleaning and etching agent. Also used as tile cleaning agent.	Removes hardened concrete from tools, machinery and equipment, suitable for etching of concrete floors and surfaces prior to application of resin or other surface coating. Also used as tile cleaning agent.	Refer Datasheet	
Silkon WB40	Low viscosity wax emulsion, water based concrete curing compound. Complies to ASTM C 309-90	For spraying on freshly cast concrete, or newly exposed concrete surfaces after removal of form work, to form a temporary membrane which will retain sufficient moisture for effective curing to take place.	3-5 m2/litre	3-5 m2/litre
Silkon RB95	High efficiency polymeric resin based film forming curing agent. Silkon RB95 give 90% or greater curing efficiency when tested as per BS 7542-1992.	As a spray applied membrane to retain moisture in concrete for effective curing. Suitable for all general concrete applications and of particular benefit for large area concrete surfaces, such as airport runways, roads and bridge works.	3-5 m2/litre	20 & 200 Liters





Head office :

Plot no. 622-P, Sector - 38, Gurgaon

Manufacturing Unit :

VPO Goela Tehsil Tauru, District Nuh, Haryana

0124 - 2200622 | +91 - 701112121

info@silkon.co.in | www.silkon.co.in



सत्यमेव जयते

**GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS**

Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

The Corporate Identity Number of the company is

*/@

*/@



Digital Signature Certificate

For and on behalf of the Jurisdictional Registrar of Companies

Registrar of Companies

Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

Mailing Address as per record available in Registrar of Companies office:



* as issued by the Income Tax Department

Certificate of Registration

This is to Certify that
Quality Management System of

SILKON ADDITIVES INDIA PRIVATE LIMITED

622P, SECTOR - 38, GURUGRAM - 122003, HARYANA, INDIA.

VPO GOYALA, TAURU, MEWAT - 122015, HARYANA, INDIA.

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope :

**MANUFACTURING OF ADMIXTURE, GROUTS, FLOORING, SEALANT,
ADHESIVES, WATERPROOFING, PROTECTIVE COATING.**

Certificate No	: 19EQBQ32	Issuance Date	: 11/10/2019
Initial Registration Date	: 11/10/2019		
Date of Expiry	: 10/10/2022		
1st Surve. Due	: 11/09/2020	2nd Surve. Due	: 11/09/2021




Director

Magnitude Management Services Pvt. Ltd

403, Madhubhan Building, 56, Nehru Place, New Delhi-110019, India

e-mail: info@mmscertification.com, website: www.mmscertification.com

* Subject to Successful Surveillance Audit in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawal).

Certificate Verification: Please Re-check the validity of certificate at <http://www.mmscertification.com/activeclients.aspx> or www.mmscertification.com at Active Clients.

Certificate is the property of Magnitude Management Services Pvt. Ltd. and shall be returned immediately when demanded



भारत सरकार
Govt. of India
सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES

MSME
सूक्ष्म, लघु और मध्यम उद्यम
MICRO, SMALL & MEDIUM ENTERPRISES



उद्योग आधार



Udyog Aadhaar



B

Type of Enterprise	Micro	Small	Medium
Manufacturing	A	B	C
Services	D	E	F
UAM No.	HR05B0017900		

Udyog Aadhaar Registration Certificate

Udyog Aadhaar Number: HR05B0017900
Name of Enterprise: SILKON ADDITIVES INDIA PRIVATE LIMITED
Location of Plant Details:

SN	Flat/Door/Block No.	Name of Premises/Building Village	Road/Street/ Lane	Area/Locality	City	Pin	State	District
1	VPO GOYALA,	TAURU,	TAURU,	TAURU	TAURU	122015	HARYANA	NUH

Official Address of Enterprise: 622P, SECTOR-38,
District: GURUGRAM State: HARYANA PIN: 122003
Mobile No: 9810056102 Email: sachintokas@live.com

Date of commencement: 23/05/2019
Major Activity: MANUFACTURING
Enterprise Type: Small
Previous Registration details-if any: ::

National Industry Classification Code

SN	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit Code	Activity Type
1	32 - Other manufacturing	3290 - Other manufacturing n.e.c.	32909 - Manufacture of other articles n.e.c.	Manufacturing
2	20 - Manufacture of chemicals and chemical products	2022 - Manufacture of paints, varnishes and similar coatings, printing ink and mastics	20229 - Manufacture of caulking compounds and similar non-refractory filling or surfacing preparations, mastics, prepared paint or varnish removers, organic composite solvents and thinners and other related products n.e.c.	Manufacturing

Acknowledgement: Date of Filing: 18/09/2019 Date of Printing: 18/09/2019

Disclaimer: This is computer generated statement, no signature required.
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MyMsme Mobile App (Beta Version) is available now for download. <https://play.google.com/store/apps/details?id=msme.mysmsme>





सत्यमेव जयते

भारत सरकार

Government Of India

वाणिज्य और उद्योग मंत्रालय

MINISTRY OF COMMERCE AND INDUSTRY

Office of Zonal Director General of Foreign Trade

संयुक्त महानिदेशक विदेश व्यापार का कार्यालय

Central Licensing Area, `A` Wing New Delhi-110002

आयातक-निर्यातक कोड (आईईसी) का प्रमाण पत्र

CERTIFICATE OF IMPORTER-EXPORTER CODE (IEC)

(This is computer generated certificate. The authenticity of this document may be verified by clicking on 'view Your IEC' link on the web site of DGFT i.e. <http://dgft.gov.in>)

- | | |
|--|---|
| 1. नाम/User Name | SILKON ADDITIVES INDIA PRIVATE LIMITED |
| 2. पता/Address | 622P, SECTOR-38, GURUGRAM

GURGAON
GURGAON
HARYANA-122003 |
| 3. उस धारक का नाम, पदनाम/Name and Designation of the signatory applicant | SACHIN TOKAS
DIRECTOR |
| 4. शाखा/इकाई का पता, हो तो/Address of the Branch/Div./Unit if any | Branches
Nil |
| 5. आईईसी संख्या/IEC Number | ABCCS1051R |
| 6. जारी करने की तारीख/Date of Issue | 04.10.2019 |
| 7. स्थाई खाता सं.(पैन)/PAN | ABCCS1051R |

स्थान /Place: GURGAON

तारीख /Date : 04.10.2019

System generated IEC certificate

(Issued From File No./[05/04/130/61726/AM20/] तारीख से जारी dated 04.10.2019)

टिप्पणी/NOTE: यह आईईसी पैन के आधार पर जारी हुआ है। / This IEC is issued on the basis of PAN.

Sachin Tokas
Managing Director

**Amit Kumar
Gehlaut**
Accounts / Legal
Department

Sunil
Accounting

Finance

**Marketing
Department**
9717887038

Brand / Advertising
Creative

Trade Marketing

Promotions / Media

Public Relations

Market Analyst

Pawan Kumar
Human Resources
Department

Recruiting Team

Training Group

Office Support

Compensation &
Benefits

**Production
Department**

Production Planning

Production

QC Manager

Purchase Department

Logistic
Department

**Technical
Department**
9873730472

Research/
Development
Department

Technical
Audit
Department

Technical /
Customer
Service
Department



Intercontinental Consultants and Technocrats Pvt. Ltd.

Consultancy Services for Authority Engineer for Supervision of Construction of 8-lane access controlled Greenfield Delhi-Vadodara Expressway (NH-148N) starting at Junction with Keshopura Road to Junction with MDR-1 (Baonli-Jhalai Road) (Ch. 151 + 840 to Ch. 183+000) in the State of Rajasthan EPC mode under Bharatmala Pariyojana

ICT/842/AE/Cont07/WoM/119

15th July 2020

**Senior Project Manager,
M/s Gawar Construction Limited.**

Village-Lahadi Ka Bas,
Tehsil-Nagal Rajawatan
Delhi – Vadodara,
District, Dausa,
Rajasthan-303313
E-mail: gclnh148n@gmail.com;

Subject:-Construction of 8-lane access controlled Greenfield Delhi-Vadodara Expressway (NH-148N) starting at ROB near junction with NH-11A (Ch. 183+000 to Ch. 214+260) in the State of Rajasthan EPC mode under Bharatmala Pariyojana (NHAI/BM/Delhi-Vadodara/2018/Pkg7) – Approval of Source, M/S Silikon additives Pvt Ltd,Gurugram (Haryana) for supply of Admixture & Curing compound- reg

Ref.:- 1. GCL/Delhi-Vadodara/Pkg.7/2019-20/311 dated 01/06/2020.
2. GCL/Delhi-Vadodara/Pkg.7/2019-20/342 dated 16/06/2020.
3. GCL/Delhi-Vadodara/Pkg.7/2019-20/393 dated 03/07/2020

Dear Sir,

As per requisition for source M/S Silikon additives Pvt Ltd for Admixture & Curing Compound material approval with above references gone through the submitted test report conducted by third party NABL Certified approved laboratory, Delhi Test House, Azadpur,Delhi and found the report within the limit.

Hence source of material of M/S Silikon additives Pvt Ltd, Gurugram (Haryana) is being approved to be used for the use for the Project needs as and where required.

Thanking You



(Sukumar K Padhy)
Team Leader

Encl :- Third Party test report sheet attached

Copy to : Project Director, NHAI- PIU – Dausa



ISO 9001

Innovative, Creative & Technologically Sustainable Infrastructure Solutions

CIN: U74899DL1987PTC026913
Corporate Office: A-8, Green Park, New Delhi-110 016, INDIA
Tel.: +91-11-40863000 Fax :+91-11-26855252
Email : business@ictonline.com
Website: <http://www.ictonline.com>

Site Office:
Kamlesh Sharma S/o Chhote Lal, Ground Floor
Surya Nagar, Behind Amit Gas Godam,
Dausa – Rajasthan - 303303,
E-mail: ictdausa@ictonline.com





DELHI TEST HOUSE®

A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)
Phone : +91-11-47075555 (30 Lines) Fax : +91-11-47075550
e-mail : info@delhitesthouse.com



Issued to:
The Project Manager
Gawar Construction Limited
Sf-01, Jmd Galleria, Sector-48, Sohna Road, Gurugaon-122001

Report No **2906200617GENN6085**
Date **22-06-2020**
Date of Receipt : **17-06-2020**
Party Ref No : **GCL/DELHI-VADODARA/PKG.7/2019-20/342 & DT. 16.06.2020**

Sample Description:-**ADMIXTURE (SUPERMIX PC 550) (MAKE-SILIKON)**

Marks--**CONSTRUCTION OF EIGHT LANE ACCESS-CONTROLLED EXPRESSWAY STARTING NEAR JUNCTION WITH NH-11 TO START OF ROB NEAR JUNCTION WORK NH-11A (CH. 183.000 TO CH 214.260) SECTION OF DELHI VADODARA GREEN FIELD ALIGNMENT (NH-148N) ON EPC MODE UNDER BHARATMALA PARIYOJANA IN THE STATE OF RAJASTHAN. M/S SILIKON ADDITIVES INDIA PVT. LIMITED)**

TEST REPORT

Sl.no	Tests	Test Values	Test Method
1.CHEMICAL PROPERTIES			
1	Appearance	Orange colour	VISUAL
2	Dry Material content, % (DMC)	30.6	IS:9103-99
3	Relative Density (at 27°C)	1.11	IS:9103-99
4	Chloride Ion Content%	0.014	IS:6925-73
5	pH	9.90	IS:9103-99

Any deviation from the Standard Test Method / Specification - Nil
SYS-RAW-85906-RAW-682020052286 dos/doc

M.C. GO...
Authorised Signatory - Director



DELHI TEST HOUSE®

A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)
Phone : +91-11-47075555 (30 Lines) Fax : +91-11-47075550
e-mail : info@delhitesthouse.com



Issued to:
The Project Manager
Gawar Construction Limited
Sf-01, Jmd Galleria, Sector-48, Sohna Road, Gurugaon-122001

Report No. 2905200617GENN5085
Date 22-06-2020
Date of Receipt 17-06-2020
Party Ref No. GCL/DELHI-VADODARA/PKG.72019-20/342 & DT: 16.06.2020

Sample Description:-ADMIXTURE (SUPERMIX PC 350) (MAKE-SILIKON)

Marks -CONSTRUCTION OF EIGHT LANE ACCESS-CONTROLLED EXPRESSWAY STARTING NEAR JUNCTION WITH NH-11 TO START OF ROB NEAR JUNCTION WORK NH-11A (CH. 183.000 TO CH 214.260) SECTION OF DELHI VADODARA GREEN FIELD ALIGNMENT (NH-148N) ON EPC MODE UNDER BHARATMALA PARIYOJANA IN THE STATE OF RAJASTHAN. M/S SILIKON ADDITIVES INDIA PVT. LIMITED)

TEST REPORT

Sl.no	Tests	Test Values	Test Method
1.CHEMICAL PROPERTIES			
1	Appearance	Pale yellow colour	VISUAL
2	Dry Material content, % (DMC)	24.8	IS:9103-99
3	Relative Density (at 27°C)	1.07	IS:9103-99
4	Chloride Ion Content%	0.016	IS:6925-73
5	pH	8.48	IS:9103-99

Any deviation from the Standard Test Method / Specification - Nil
MAN-RAW-85905-RAW-682020062286 dos/doc

M.C. GOEL
Director



DELHI TEST HOUSE®

A-62/3, G.T. Karnal Road, Industrial Area, Opp. Hans Cinema, Azadpur, Delhi-110 033 (INDIA)
Phone : +91-11-47075555 (30 Lines) Fax : +91-11-47075550
e-mail : info@delhitesthouse.com



Issued to:
The Project Manager
Gawar Construction Limited
SF-01, JMD Galleria, Sector-48,
Sohna Road, Gurugaon-122001

QR-0302
Report No : 2907200617GENN7083
Date : 27.06.2020
Date of Receipt : 17.06.2020
Party Ref No : GCL/DELHI-
VADODARA/PKG.7/2019-20/342
Letter Date : 16.06.2020

Sample Description:-Curing Compound Silikon WB 40 (Make-Silkon)
MARK: CONSTRUCTION OF EIGHT LANE ACCESS-CONTROLLED EXPRESSWAY STARTING NEAR JUNCTION WITH NH-11 TO START OF ROB NEAR JUNCTION WORK NH-11A (CH. 183.000 TO CH 214.260) SECTION OF DELHI VADODARA GREEN FIELD ALIGNMENT (NH-148N) ON OPC MODE UNDER BHARATMALA PARIYOJANA IN THE STATE OF RAJASTHAN. M/S SILIKON ADDITIVES INDIA PVT. LIMITED)

TEST REPORT

S.No	Test	Test Method	Results
1.	Drying time, hrs	ASTMC -309	2:11
2.	Coverage Rate, L/m ²	BS-7542/92	0.212
3.	Curing efficiency %		
(a)	Sample cure free (Before curing)	BS-7542/92	88.36
(b)	Sample rite cure (After curing)		90.07
4.	Reflectance at 45°	ASTMC-309	75
5.	Specific graviry at 25°C	ASTMD-1217	0.854

Note: Any deviation from the standard test method/specification - Nil

Date of start of testing : 18.06.2020

Date of completion of testing : 27.06.2020

Authorised Signatory - Director

**ACC Limited**

(Unit: AMETHA CEMENT WORKS)

Address : Tehsil - Vijayraghavgarh

Ametha , PIN :483880,

PAN No :**GSTN No.** : 23AAACT1507C1Z5**Cont. Person:****Tel. No.** :**Fax No.** :**E-Mail** :**Vendor Code** : 910036433**SILKON ADDITIVES INDIA PVT LTD,**

622P SECTOR 38 GURUGRAM

GURUGRAM, ,PIN:122001

Haryana,India

GSTN No: 06ABCCS1051R1Z4**PAN No** : ABCCS1051R**Tel No** : 1800-123-6299**FAX No** :**E-Mail** : udham@silkon.co.in**Contact:** UDHAM SINGH**Purchase Order****SAP PO No/Plant** 1200825697/N239**PO Date** : 23.04.2021**PO Type** : CAP(Capital)**Issuing Authority** : PLANT PROJECT PROCUREMENT**Vendor's Ref/Qtn No** :**Created by:** Abhishek Singh**Please Quote the GSTN Number, PO No., Line****Item No, Name of the Works/Unit and the****Contact Person in all correspondences****(including the Delivery Challan/Invoice)****Please provide copy of valid MSMED****certificate along with the copy of invoice****and other documents.**

With reference to your quotation and subsequent negotiations, we are pleased to place this Purchase Order on you for the supply of following items/services subject to terms and conditions stated below and printed overleaf/attached with this purchase order

PO Item No / PR No / Dept	Item Code	Description & Specification	Delivery Date	Taxes/Duties Value	Qty	UOM	Price in INR	Total Discount	Amount in INR
00001/ 1000516590 / PRJMECH		Supply of admixtures Supermix PC -550 HSN Code:38249090	31.03.2022	Integrated GST 18%	80,000.000	KG	PER 1 KG	0.00	
00002/ 1000516591 / PRJMECH		Supply of admixtures Supermix PC -450 HSN Code:38249090	31.03.2022	Integrated GST 18%	120,000.000	KG	PER		

Total in INR**Header Information :**

- * PO for Supply of admixtures Supermix PC -550 and Supply of admixtures Supermix PC -450.
- * Other Terms and condition are mentioned in Special Instruction.
- * You staff shall follow all the latest COVID19 guidelines at site as per ACC-LH guidelines.
- * All safety/ environment/ labour dept. statutory guidelines to be strictly ensured.

Other terms-

1. Our Authorised Transporter is M/s ARC Ltd.
2. Kindly send PO acceptance by revert mail.



MSV INTERNATIONAL INC.

In Association with

MSV INTERNATIONAL TECH PVT. LTD.

MSV International, Inc.
C/o Sombir, Near Nahar Vatika,
Dhram Palace, Preeti Garden,
Kacha Babra Road Jhajjar
Haryana 124103
Email : msv.rohna@gmail.com
CIN: F04214

IE for supervision of Redesigning, Rehabilitation & Upgradation to 4 Lane configuration & Strengthening of Rohna/Hassangarh to Jhajjar Section of NH-334B in Haryana

Letter No: MSV/TL/ROH-JJR/2019/474

Date: 26/11/2019

To,

M/s Gawar Rohna Jhajjar Highway Pvt. Ltd.
SF-01, JMD Galleria,
Sector-48, Sohna Road,
Gurugram, Haryana - 122001

Project Name: Redesigning, Rehabilitation and Upgradation to Four Lane configuration & Strengthening of Rohna/Hassangarh to Jhajjar section from km 44.80 to km 80.250 (Design Chainage) (Length 35.450 km) of NH-334B in the State of Haryana on Hybrid Annuity Mode.

Reg: Review of Company profile of M/s Silicon Additives India Pvt Ltd for concrete admixture (Super Plasticising Admixture).

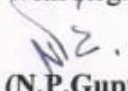
Ref: GAWAR/R-J/NH-334B/2019/554 dated 20-11-2019.

Dear Sir,

With reference to above cited subject, the company profile of M/s Silicon Additives India Pvt Ltd regarding concrete super plasticising admixture has been reviewed and found in order to fulfill the requirement for the concrete work. Its approval is accorded subject to compliance of frequency test as well as third party test result of each lot of chemical admixture as per specification of **MORT&H Section 1705 Admixture & IS: 9103 (1999)**.

This is for your information.

With Regards,


(N.P.Gupta)
Team Leader
(Rohna-Jhajjar. NH-334B)
For MSV Int. Tech. Pvt. Ltd.

To

Gayatri Projects Ltd.

Sector A/02/01, Sushant Golf City

Near G. D. Goenka School,

ANSAL API, Lucknow

Subject: Consultancy services for Authority's Engineer for supervision of Package I to Package IV of Purvanchal Expressway in the state of Uttar Pradesh on EPC basis; *(Pkg- II) : Submission of credentials of Vendor Source approval for supply of additives/admixture/allied products/other services (e.g. Grouting, Waterproofing, Surface treatment etc); wherever required as per approved design and drawing.*

Your ref.: GPL/UPEIDA/PKG-I & II/2018-19/1143A dated 24.01.2020

Your ref.: GPL/UPEIDA/PKG-II/2018-19/1143 dated 21.10.2019

Dear Sir,

Please refer to your above cited letter vide which you have submitted the credential of M/s Silkon Additives India Pvt. Ltd., Gurgaon for approval as source of admixture to be incorporated in the subject project.

We have reviewed the proposal in accordance with the required specification and the same is found in order. Based on the review, the source, M/s Silkon Additives India Pvt. Ltd., Gurgaon is hereby concurred.

However, the acceptance of the admixture from the above mentioned source will be subject to the compliance of the following observations:

1. The first consignment and further at reasonably regular intervals have to be got tested for physical and chemical properties through third party approved testing laboratory or any prime engineering institute of repute.
2. Admixture shall conform to the requirement of the MoRTH Clause 1012.3 and IS: 9103-1999, 6925.
3. Every lot/consignment shall be supported with the manufacture's test certificate.
4. If the material do not conform the prescribed test as per specifications or found damaged at any stage, it shall be rejected and removed from site immediately not considered for approval.
5. Satisfactory performance of the admixtures should be proved on the laboratory concrete trial mixes.
6. The right to reject the above sources without any prior notice is hereby reserved if it is found that the product has failed to comply the specifications of above conditions.

EGIS International S.A. in JV with Egis India Consulting Engineers Pvt. Ltd.

An ISO 9001 : 2008 Certified Company

Regd. Office: T-305, TF, Tirupati Plaza, Sector-XI, (MLU) PKT-4, Plot No. 11, Dwarka, New Delhi-110075, India Tel.: +91 11 4570 4300

Project Office: Plot No. 1/597, Sector-1, Gomti Nagar Vistar, Lucknow – 226 010,

Email ID: TL.UPEIDA@egis-india.com

Project: Consultancy Services for Authority's Engineer for Supervision of Package-1 to Package IV of Purvanchal Expressway in the state of Uttar Pradesh on EPC Basis





Your prompt cooperation in this regard shall be highly appreciated.

Yours truly,

For Egis International S.A. and Egis India Consulting Engineers Pvt Ltd.

(Dr. V K Shrivastava)
Team Leader

- Cc: 1. Chief Executive Officer, UPEIDA (for information please)
2. Executive Engineer, PIU-2, UPEIDA, (for information please)
3. Resident Engineer -2

EGIS International S.A. in JV with Egis India Consulting Engineers Pvt. Ltd.

An ISO 9001 : 2008 Certified Company

Regd. Office: T-305, TF, Tirupati Plaza, Sector-XI, (MLU) PKT-4, Plot No. 11, Dwarka, New Delhi-110075, India Tel.: +91 11 4570 4300

Project Office: Plot No. 1/597, Sector-1, Gomti Nagar Vistar, Lucknow – 226 010,

Email ID: TL.UPEIDA@egis-india.com

Project: Consultancy Services for Authority's Engineer for Supervision of Package-1 to Package IV of Purvanchal Expressway in the state of Uttar Pradesh on EPC Basis



ICT/UPEIDA/BLKD/EW/TL/ 123

Date: 20/05/2020

To,
The Project Manager
Gawar Construction Ltd.
Bundelkhand Expressways,
Package-V

Sub: - Consultancy Services for acting as Authority's Engineer "For Supervision of Package-IV to Package-VI of Bundelkhand Expressway" in the State of Uttar Pradesh on EPC Basis-**Reg. Approval Mix design of concrete**.

Dear sir,

With respect to the test result submitted by you vide letter no- 62, date 14-03-2020 Regarding request proposal for the Approval concrete mix design M-35 RCC found in order satisfactory as per MoRT&H clause- 1703 and 1704 of technical specification.

Based on 28 days cube test result for the above mix design grade concrete is approved having the 28 days cube test result as **M-35=46.25MPa** respectively for the materials from the following sources:

Course Aggregate : Bhandar Quarry (MP)
Fine aggregate : Betwa River
Cement : Ultratech cement OPC43 grade
Admixture : Silicon Plast
Flyash : NTPC

The proportion of mix as under:

Grade of concrete	Cement in kg	Fly ash	W/C ratio	Water in Ltr	20MM	10MM	Sand	Admixture
M-35	334kg	83kg	0.36	150.00L	640kg	516kg	686kg	2.29kg@0.55% by weight of cement

Moisture correction shall be applied during concreting of all grade to course and fine aggregate to bring the aggregate equivalent to SSD condition.

Therefore, you are here by directed to go ahead as according to above mention ration by taking care of all the safety aspect. The changes as required at he site can be incorporate with consent to our representative and submit to this office



Innovative, Creative & Technologically Sustainable Infrastructure Solutions

CIN : U74699DL1987PTC026913
Regd. Office : A-8, Green Park, New Delhi-110 016, INDIA
Tel : +91-11-40863000 Fax : +91-11-26855252
Email : contracts@ictonline.com
Website : http://www.ictonline.com

Team Leader Office:
C/o Mr. Avindra Kumar Ojha
3785, Ram Nagar, Near Chaudhary Charan Singh
Inter College, Orai, District Jalaun,
Uttar Pradesh- 285001, Email : ti.orai@ictonline.com

**Continental Consultants
and Technocrats Pvt. Ltd**

*Consultancy Services of Authority's Engineer for Supervision of 'Bundelkhand Expressway Project'
(Package IV to Package VI) in the state of Uttar Pradesh on EPC basis*

for approval, if any

The approval can be withdrawn without prior notice in between, if any deficiency found during the routine quality control tests.

Thanking you and assuring our best co-operation in all times

Yours truly



**P. N. Sharma
Team Leader
For ICT Pvt. Ltd.**

Copy:

- 1-The project Director UPEIDA plu-4 konch road jalaun bay pass 1st floor orai-285001.
- 2-Office file.

ICT/AE/NHAI/IND/NH-152D/2020/PKG-5/TL-218

Date: 25th July 2020

Sr. Project Manager,
Gawar Construction Ltd.,
Project Office-Rohtak, Haryana

Sub: Consultancy Service for Authority's Engineer for Supervision of Construction of 6-lane access controlled Greenfield highway from Junction with Jind-Safidon road (SH-14) near Kheri village to Junction with NH-334B (Charkhi Dadri-Jhajjar section) near Charkhi Dadri (Ch. 80+000 to Ch. 165+000, length 85 km) in the State of Haryana on EPC mode under Bharatmala Pariyojana [Ismailabad-Narnaul/NH-152D/AE/Pkg2] –**Reg. Approval of Mix Designs of Concrete without Flyash.**

Ref.: GCL/NH-152D/Pkg-5/2020-21/213, dated 22 July 2020.

Dear Sir,

With reference to your above cited letter, we have reviewed & examined the mix designs submitted by you for cement concrete without flyash, found in order hence approved. The details of Concrete Mix Design are given below:-


- M-10 PCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-15 PCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-20 RCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-30 RCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-35 RCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-35 Pile with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-40 RCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.
- M-45 RCC with OPC (43 Grade) Ultratech Cement and Silkon supermix PC450 Admixture.

If the source of materials of coarse aggregate, fine aggregate and cement shall change, you are required to conduct fresh laboratory tests for mix design and submit the results to our office for approval. At the time of concreting it is necessary to maintain the laboratory test frequency as per the MORT&H specifications for the quality control and assurance. If the supplies varies or deviated from the required test results not conforming as per the relevant IS codes and MORT&H specifications than the approval will automatically stand cancelled.

Thanking you and assuring of our best services at all times.

Yours truly,

For Intercontinental Consultants and Technocrats Pvt. Ltd.,


(Sourabh Singhal)
Team Leader
(Authority's Engineer NHAI)

Cc.

1. Project Director, NHAI, PIU-Bhiwani, House No. 1397, Sector -13, Bhiwani. For information.



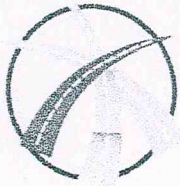
Innovative, Creative & Technologically Sustainable Infrastructure Solutions

CIN : U74899DL1987PTC026913
Corporate Office : A-8, Green Park, New Delhi-110 016, INDIA
Tel.: +91-11-40863000 Fax :+91-11-26855252
Email: business@ictonline.com
Website : <http://www.ictonline.com>

Site Office:

Intercontinental Consultant & Technocrats Pvt. Ltd.
House No. 1286, Huda Sector No.-3,
Rohtak-124001 (Haryana).
Tel.: 01262 - 297326





GAWAR
CONSTRUCTION LIMITED

AN ISO 9001:2015 Certified Company
CIN: U70104HR2012PLC037773

*Seen
Refer SQME, BE
SPS to review
and examine the
concrete mix designs
without flyash*

GAWAR CONSTRUCTION LIMITED
SF-01, JMD Galleria,
Sector-48, Sohna Road,
Gurgaon - 122001 (Haryana)
Ph.: (0124) 4854000
Fax: (0124) 4854001/02
Web: www.gawar.in
E-mail: gcl@gawar.in

*Singla
22/07/2020*

Ref: GCL/NH-152D/PKG-5/2020-21/ 213

Date: 22 July 2020

Team Leader

Intercontinental Consultants and Technocrats Pvt. Ltd.
House No. 1286, Sector -3
Rohtak, Haryana

Project: Construction of Six-Lane access controlled highway (NH-152D starting from Junction with NH-352 (Jind-Gohana) near Julana to Junction with NH-9 (Rohtak-Jind section) near Kharkara [Ch. 108+000 to 131+000; Length 23 km] on EPC Mode under Bharatmala Pariyojana in the State of Haryana.

Subject: Submission for approval of Concrete Mix Design with Ultratech OPC 43 Grade Cement without Flyash- Reg.

Dear Sir,

Please find enclosed herewith the test result of Concrete Mix Design for following:

1. M-10 PCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
2. M-15 PCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
3. M-20 RCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
4. M-30 RCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
5. M-35 RCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
6. M-35 Pile with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
7. M-40 RCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture
8. M-45 RCC with OPC (43 Grade) Ultratech Cement and Silkon Supermix PC450 Admixture

This is submitted for your kind perusal, review and needful approval.

Thanking you,

For Gawar Construction Limited

Deepak Gupta
(Deepak Kumar Gupta)
Senior Project Manager

CC: Project Director, NHAI, PIU-Bhiwani (For information)

Encls: As above

Intercontinental Consultants & Technocrats Pvt. Ltd.			
Rohtak, (ismailabad-Narnaul NH-152/AE/PKG-2)			
Receipt No.	507		Date: 21 July 2020
Designation	For Action	For Info.	Comments
RE-I			
RE-II			
SQME	✓		Review and examine the Mix design
SPS	✓		
BE	✓		
RSE			
QS			
Received By: <i>[Signature]</i>			



Construction of Six -Lane access controlled highway (NH-152D)-starting from junction with NH-352 (Jind-Rohtak) Near Julana to junction with NH-9(Rohtak-Hisar) section near kharkara (Ch. 108+000 to 131+000; Length 23)km on EPC Mode under Bharatmala Pariyojana in the state of Haryana

भारतीय राजमार्ग प्राधिकरण
National Highways Authority of India

Client National Highway Authority of India
 Authority's Engineer Intercontinental consultants and Technocrats Pvt. Ltd.
 Contractor Gawar Construction Ltd.

SUMMARY OF DESIGN MIX WITHOUT FLYASH

SR. NO.	GRADE	GRADE OF CEMENT	ADMIXTURE BRAND NAME	INGREDIENT (Kg)							W/C RATIO	SLUMP IN MM	7 DAYS COMPRESSIVE STRENGTH IN N/MM ²	28 DAYS COMPRESSIVE STRENGTH IN N/MM ²	TARGET MEAN STRENGTH IN N/MM ²	REMARKS
				CEMENT	MICRO SILICA	SAND	10 MM	20 MM	WATER	ADMIXTURE						
1	M-10 PCC			230	0	832	505	761	138	0.920	0.6	145	11.27	16.53	15.78	
2	M-15PCC			250	0	849	583	716	125	1.125	0.5	170	19.36	26.9	25	
3	M-20RCC			310	0	804	487	735	139	1.550	0.448	170	24.46	31.92	30	
4	M-30RCC	ULTRATECH OPC43	SILKON SUPERMIX PC450	385	0	763	462	698	154	2.118	0.4	170	32.09	43.07	42	
5	M-35RCC			395	0	759	460	694	154	2.370	0.39	175	37.1	48.82	47	
6	M-35PILE			413	0	741	449	677	165	2.891	0.4	COLLAPSE	36.15	48.36	47	
7	M-40RCC			433	0	743	451	680	156	3.031	0.36	170	40.55	53.61	52	
8	M-45RCC			443	0	741	449	677	155	3.540	0.35	155	44.15	60.02	58	

Handwritten signature and date: 25/7/2020

Team Leader Cum Sr. Highway Engineer
 Intercontinental Consultants & Technocrats Pvt. Ltd.
 Rohtak, (Ismailed-Namaal/NH152/AE/PKG-2)

Handwritten signature: A.K. M.E.

Handwritten signature: Banhi (Chhonia)

EPC Contractor Rep.

Authority Engineer Rep.

**GAWAR CONSTRUCTION LIMITED**

SF-01, JMD Galleria,
Sector-48, Sohna Road,
Gurgaon - 122001 (Haryana)

Ph.: (0124) 4854000

Fax: (0124) 4854001/02

E-mail: abhishekjain@gawar.in

CIN No.: U70109HR2008PLC037773

An ISO 9001:2008 Certified Company

Ref. No.: GCL/GGN/PO/18-19/587

Dated:- 02-April-2018

To, Sachin Tokas Silkon Chemicals
Village Goela Tauru, Nuh-122105
Haryana

GSTIN:- 06ARLPT6055E3ZH

Sub: Regd.- Purchase order of Silkon PCE 450

Dear Sir,

As subject cited above, we are pleased to place an order for the following item:-

Sr. No.	Description of Goods	QTY (in MT)	Rate	Amount
1	Silkon PCE 450	150	7000	1050000
	TOTAL			1050000

Terms & Conditions:-

- 1 Billing Address: Gawar Construction Limited Shop No. 203, Plot No. 15A/44, 2nd Floor
Pratap Chamber Karol Bagh, New Delhi-110005
- 2 Delivery Site Casting Yard adjoining to Bye Pass Road, Mahipalpur, New Delhi
- 3 Contact Person : Abhishek Jain (M) 09582807003
- 4 Buyer GSTIN:- 07AADCG1026A1ZF

Thanks & Regards

For Gawar Construction Limited

Authorized Signatory



PURCHASE ORDER

PO Details		Principal Business Place Name,Address				
PO No	: 20043533	Address : GKC PROJECTS LTD,Telipura Road , Bus Stand, ,,Bilaspur,,495001.				
Date of PO	: 10.02.2021	GSTIN : 22AACCG1395F2ZX				
Amendment No	:	State Code : 22				
Date Of Amendment	:					
Plant Code	: 2024/Raipur- Kodebad Road					
Vendor No	: 1005200					
Vendor Principal Business Place		Place of Supply Name,Address				
SILKON ADDITIVES INDIA PRIVATE LIMITED 622 P,,SECTOR-38,,GURUGRAM ,Gurgaon Haryana-122001.		GKC Projects limited,Raipur - Kodebad,No 85 , CGHB Colony, ,Near Saddani Darwar Building,Raipur,Chattisgarh - 492001,				
Vendor GSTIN	: 06ABCCS1051R1Z4	Buyer Name : Mr.Naveen				
Vendor Class	: Registered	Contact.No : 08790951114				
PAN No	:	State Code : 22				
E-Mail	:					
Mobile/TelNo	:					
State Code	: 06					
Goods Dispatched From						
SILKON ADDITIVES INDIA PRIVATE LIMITED,622 P,,SECTOR-38,,GURUGRAMGurgaon,,Haryana-122001						
GSTIN : 06ABCCS1051R1Z4						
Dear Sir / Madam, Your Quote/Bid No QT-0105/19NOV/UDHAM dated 19-11-2020 read with subsequent discussions and negotiations is acceptable. The Terms and Conditions mentioned below and the attached General terms and conditions form a integral part of this Purchase Order.						
SN	HSN Code	Material Description	Unit	Quantity	Unit Rate (INR)	Amount (INR)
10	3824	ADMIXTURE	MT	17.000		
20	3824	ADMIXTURE	MT	8.000		
Total Value						
Net Value Before Tax						
IGST						
Net Value After Tax						
Order value in words:						
Terms & Conditions						
Price Basis	:	IGST shown above is @ 18%. TCS@0.075% will be paid extra by GKC if applicable.				
Transportation	:	Inclusive upto our site				

GKC Projects Limited

ISO 9001 : 2015 || ISO 14001:2015 || OHSAS 18001:2007

CIN: U45200TG2004PLC043015

Po No : 20043533

VendorNo / Name : 1005200 / SILKON ADDITIVES INDIA PRIVATE LIMITED

Payment Terms	:	100% Advance Payment Along with Purchase Order.
Delivery Date	:	As per our site requirement and will be intimated by our site people, at the delivery address mentioned below.
Other Contractual Stipulation	:	Supermix PC450 Advanced Low Viscosity High Performance Super Plasticiser Complies with IS/9103-1999 (2007 & ASTM C494) Material supplied should be as per Design Mix Approved at site. If the quality of the material is not as per approved design mix the same will be rejected from our end and the same has to be replaced at free of cost. Note: Empty Barrels belongs to Silkon Additives India Pvt Ltd Assets and will be on returnable basis to be lifted by you (Silkon).
Consignee Tax Details	:	
Delivery Address	:	GKC Projects Limited, Raipur-Kodebad Road NH43 Near Mintu International School Tehsil - Abhanpur , Village # Bendri New Raipur, Chhattisgarh # 493661 Contact Name: Mr.Vijay (Stores) Contact Number:09573011163
Billing Address	:	GKC PROJECTS LTD CGHB Colony,No 85 Banayan, Near Saddani Darwar Building, Boriyakala, Raipur, Chattisgarh - 492001
Special Terms and Conditions	:	Test Certificate: Please arrange to submit the test certificates along with the supplies.

Prior approval has to be taken from us before dispatch of the material for any variations arising in the statutory levies, duties and taxes at the time of delivery. In the absence of the same, the additional financial implications would have to be borne by you.

Please acknowledge the additional copy of PO being sent and return it to us duly signed and stamped on all pages.

For GKC Projects Limited



Authorised Signatory

Billing Address

GAYATRI PROJECTS LIMITED
C/O UPEIDA WORKS.,
Sector:A/02/01,Sushant Golf City,
Ansal API,LUCKNOW,U.P-226030.
Contact Person Mr.Pavan: 9437039352



QSF: 8.4.2.01

Purchase Order

To **SILKON ADDITIVES INDIA PVT LTD**
622P,Sector-38,Gurugram
Haryana-122001.
Contact: Mr.Udam Singh-9717887038

P.O. No. GPL/Gen/19-20/C-807

Date:February 10th 2020

Indent No:1772/01.02.2020

Dear Sirs,

With reference to your Quotation no:QT/004/31 dt.10.02.20, we are pleased to place the purchase order as per terms & conditions given below.

s.no.	Item Description	units	Qty	price/unit	Value (Rs.)
1	SILKON WB30-Water Based Curing Compound	KG	15000	■	■
				GST@18%	■
				TOTAL	■

Terms and conditions:

1	Price	As shown above
2	Our GST No.	09AAACG8040K1ZH
3	Transportation	Price is inclusive of Transportation.
4	Packing	In 230 kg barrels. Barrels are returnable to you.
5	Payment Terms	With in 45 days after delivery at our store
6	Delivery Schedule	within 4 days after placing the order.
7	GPL GST NO	09AAACG8040K1ZH
8	Delivery at	CAMP-3,Batmau.
9	Delivery address for Camp-3	Gayatri projects Limited, Camp-3, Bhatmau -Village, Jagdishpur - Tesil, Amathi- Dist, Uttar Pradesh, Pin : 227809/Contact no:Mr Vijay Kumar-7894438406,8327757899
10	Specifications	Specifications & Description as per your referred offer.
11	Jurisdiction	For all disputes and for all purposes -Hyderabad,Telangana only.

Kindly return the duplicate copy of this order, duly signed, as a token of your acceptance.

For GAYATRI PROJECTS LIMITED


AUTHORISED SIGNATORY



Site Office:
Gayatri Projects Limited,UPDIEA
Near GD Goeinka School,Ansal API,Sushant golf city
Lucknow-Uttar Pradesh-226030.

Regd.&Corp.Office
Gayatri Projects Limited,B1,6-3-1090
TSR Towers,Raj Bhavan RoadSomajiguda
Hyderabad 500082.Telangana.

TPF GETINSA EUROESTUDIOS, S.L.

getinsa-euroestudios

TL Office: HIG-B-351, Siddharth Enclave (Vistar), Behind State Bank of India
Taramandal, Gorakhpur – 273016

RE Office: 2nd Floor, House No. 683, Sidhari, Naya Pool, Nr. Bank of Maharashtra, Azamgarh, UP - 276001

Email: tpfgetinsa.gorakhpur@gmail.com, tpfgetinsa.azamgarh@gmail.com

Project: Consultancy Services for acting as Authority's Engineer for Supervision of Gorakhpur Link Expressway Project (Package I and II) on EPC Basis.

FCRN: F04460



Ref: TPF/AE/TL/SCIA037/EPC/2020-21/ 166

Date: 05.12.2020

To

The Authorized Signatory,

Apco Infratech Pvt.Ltd

Camp-1

Village: Nakaudi,

Post: Sikariganj, Tehsil- Khajni,

Dist- Gorakhpur- 273213.

Sub: Consultancy service of "Authority Engineer" for supervision of Gorakhpur Link Expressway (Package-1&2) from Jaitpur (Dist. Gorakhpur) to Salarpur (Dist.Azamgarh) (KM -0+817 to KM 90+535) in the state of Uttar Pradesh on EPC basis- **Submission of Credentials of Silkon Additives India PVT.LTD for Concrete Admixtures and Curing Compound.**

Ref: Your letter no. APCO/GLE/2020/171 dated :30.09.2020

Dear Sir,

Reference to above mentioned letter Credentials of Silikon Additives India Pvt. Ltd. for Concrete Admixtures and Curing Compound has been reviewed and found satisfactory. Further before you to place the order for procurement following things to be done.

1. Joint sampling of admixture shall be carried out in the presence of our representative and send to third party test to NABL approved lab.
2. Final approval of source shall be after getting third party result only.
3. In case material does not conform to the requirement of the specification it will lead to rejection and source shall be deemed to be disapproved.
4. Manufacture test certificate shall be submitted for every consignment and third party test in independent laboratory shall be done in each consignment to site.

This is for your kind suggestion and information please.

Thanks & Regards

Yours Sincerely

Team Leader,

TPF Getinsa Euroestudios S L

Copy submitted to:

1. The Chief Executive Officer, UPEIDA. For Kind Information Please
2. The Chief General Manager, UPEIDA. For Kind Information Please.
3. The Chief Engineer, UPEIDA- For Kind Information Please
4. The Executive Engineer, PIU-I, Gorakhpur Link Expressway- For Kind Information Please.
5. The Chief Project Coordinator, TPF Getinsa Euroestudios S L- For Kind Information Please.
6. The RE-1, TPF Getinsa Euroestudios S L- For Kind Information Please.

Letter no.:AA/TL/SPS/2021-22/11

Date:-07/04/2021

To,
The Project Manager
S P Singla Construction Pvt. Ltd.,
Project Office near India Coast Guard,
In front of Rukana Peer,
Gayatri Matre Road, Okha, Gujarat.

Subject: Construction of 4- Lane Signature Bridge (900m long central cable stayed module).
Connecting missing links between Okha and Beyt Dwarka on EPC Mode Including
Construction of approaches on new National Highway No. NH – 51 Gujarat. **Reg:**
“Regarding Vendor approval for Admixture Silkon Additives India Pvt. Ltd.”

Ref: 1. SPS/SITE/SB/540 on dated:05.04.2021.

Dear Sir,

With reference to above the, submitted credential of M/S Silkon Additives India Pvt. Ltd.,Gurgaon
for approval as source of admixture to be used in the Project.

We have reviewed the proposal as per required specification and same is found in order. Hence,
above source is being approved subject to following conditions are as under:

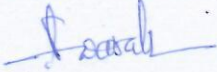
1. The first consignment and further at reasonable regular intervals have to be got tested
for physical and chemical properties through approved third party testing laboratory or
any prime engineering institute of repute.
2. Admixture shall conform to the requirement of the MoRTH Clause 1012.3 and IS:9103-
1999,6925.
3. Every lot/consignment shall be supported with the manufacture's test certificate.
4. If the material do not conform the prescribed test as per specifications or found damaged
at any stage, it shall be rejected and removed from site immediately not considered for
approval.
5. Satisfactory performance of the admixtures should be proved on the laboratory concrete
trial mixes.
6. The right to reject the above sources without any prior notice is hereby reserved if it is
found that the product has failed to comply the specifications of above conditions.

This is your kind information and record please.



Thanking you.

Aarvee Associates Architects Engineers & Consultants Pvt. Ltd.



For Team Leader Cum Senior Bridge Engineer

A V Nageswar Rao

Resident Engineer Cum Bridge Engineer

Copy to :

1. The Executive Engineer NH Division, Rajkot (GUJ) – For information please
2. The Engineer, Aarvee Associate, Hyderabad.


LION ENGINEERING CONSULTANTS PVT. LTD.

"Contributing in Building the Infrastructure of the Nation"

Ref: LEC/A.E./NH-43/R-K/638

Date: 25-11-2020

To,
 The Project Manager,
 M/s GKC Projects Ltd.
 85-Baniyan, Opp. Shadani Darbar,
 Boriakala, Raipur- Dhamtari Road,
 Raipur (C.G) - 492001
 E-mail: suman.kumar@gkcpl.com

Project :- Four Lanning of Raipur - Kodebad Section from 10.200 TO Km. 43.400 of NH-43 in the state of Chhattisgarh under NHDP Phase - IV on EPC Mode.

Sub: Source approval for Silkon Admixture - Reg.

Ref: Your letter no. GKCPL/NHAI /R-K/Pkg-1/175, Dated 23-11-2020.

Dear Sir,

In reference to above cited letter, the submission has been reviewed and following are our observations:

The proposed source meeting the requirements / compliance to the contract specifications thus initial approval is subject to fulfill the following Conditions.


1. All consignments shall be subject to independent testing at approved laboratories and shall confirm to IS: 9103 and clause 10.12 of MoRT&H standard Specifications for using Admixtures.
2. Each lot shall be inspected jointly with the Authority Engineer before using in the Concrete works and testing in accordance with the frequencies set out in the specifications shall be undertaken on each batch delivered to the site.
3. The contractor has to furnish the manufacturer test results of recently manufactured material from the proposed source as per MoRT&H specifications.

This is for your information and further necessary action.

For Lion Engineering Consultants
 In association with
 Synergy Engineering Group Pvt. Ltd.

S.K. Jaiswal
 (S.K. Jaiswal)
 Team Leader

Copy to: (1) The Project Director, NHAI, PIU-Dhamtari.
 (2) H.O., Lion Engineering Consultants, Bhopal.

		Purchase Order		PO.NO. 524404		Rev.No. 0	
				Vendor SILKON ADDITIVES INDIA PRIVATE LIMITED #ABCCS1051R			
				Address			
17-18 Nehru Place New Delhi Delhi 110019 India.				622 P, SECTOR - 38, GURUGRAM, GURGAON , HARYANA - 122001, GURUGRAM, Haryana, 122001			
				GST NO. 06ABCCS1051R1Z4			
Ship to				Bill to			
PUNJ LLOYD LTD. Village - Kipasda Post - Dharsiva Raipur CG 493111 India.				PUNJ LLOYD LTD. Village - Kipasda Post - Dharsiva Raipur CG 493111 India.			
GST NO. 22AAACP0305Q1ZO				GST NO. 22AAACP0305Q1ZO			
Vendor no.		141116		PO Date/Buyer		26-JUN-2020/Khan, Mr. Imteyaz Ahmad	
Vendor Contact		., SANDEEP		PO Rev Date/Buyer			
Payment Terms		AS PER ANNEXURE		Requester		ALAM, Mr. MD. PERWEZ	
PO on M/s SILKON ADDITIVES INDIA PRIVATE LIMITED for supply of Curing Compound at Raipur Simga Road Project, Chhattisgarh							
Sino	Item Description	HSN/SAC	Uom	Qty	Unit Price	Tax Rate	Total Amount
1	CURING COMPOUND		LTR	1000 0			
	IGST(Recoverable)					18%	
Amount in Words:						Total:	
INR [REDACTED]							
Note:						Authorized Signatory	
Note to Supplier:							
Please mention purchase order number in all transactions.							

Annexure Details:

Sno	Percentage Payment	Condition	Condition Details
1	100	As per annexure	Payment shall be released within 7 days after receiving the material at site in acceptable condition

This Purchase order (PO) serves to award the supply of Curing Compound resin based Aluminized reflective (SILKON RB95) for Raipur Simga Road Project by Punj Lloyd Limited (hereinafter referred to as "PLL") to M/s SILKON ADDITIVES INDIA PRIVATE LIMITED (herein after referred to as "Supplier").

1. SCOPE OF WORK

Supply of Curing Compound resin based Aluminized reflective (SILKON RB95) to PLL's Raipur Simga Road Project site, Chhattisgarh. Material Loading, Transportation upto PLL's Site shall be arranged by supplier. Supplier to provide contact details of drivers and so that proper track of their movement can be kept by PLL. Transporter shall send vehicle and driver details within 2 hours of vehicle placement to PLL by E - mail / Fax / Phone.

Unloading at site is in scope of PLL and Empty barrels are on returnable basis.

2. ORDER PRICE

The Order value shall be as per unit rate basis with a basic total order value of INR 430,000/- (Indian Rupee Four Lacs Thirty Thousand only) including Packing, Loading, Transportation up to PLL's Site, GST @ 18% shall be extra as applicable. Payment shall be made on actual material supplied by the Supplier and duly certified by PLL.

The Order Price shall remain fixed and firm for the referred scope of works and shall not be subjected to any kind of escalation throughout the execution of the Purchase Order, including currency, raw material, oil price and wages fluctuations.

3. TERMS OF PAYMENT

100% of the Supply value shall be paid against receipt of material at site in acceptable condition, within 10-15 days from the date of receipt of the Tax invoice duly certified by PLL.

4. TAXES & DUTIES:

Taxes & duties shall be paid extra at actual at prevailing rate at the time of dispatch of finished product by PLL. The present applicable tax are:

IGST : 18%

Prices are inclusive of customs duty for all imported components and no custom duty variation shall be applicable if any.

Seller will make Punj Lloyd Ltd. as a consignee in all dispatches.

5. TRANSPORTATION UP TO SITE:

Materials shall be transported by seller up to Site by their approved transporters and the freight charges up to site are inclusive in order value. However, PLL shall reserve the right to lift the material from seller's works.

In case of receipt of any defective barrel / material at site, Supplier shall make immediate arrangement to replace the same at his own expense.

6. DELIVERY / COMPLETION:

Timely delivery of the materials covered under the scope of PO is essence for this project. This is a fast track project and therefore seller shall put best efforts in delivering the material within 4-5 days from the receipt of formal instruction from Punj Lloyd for the Supply of material.

No material shall be dispatched without PLL's formal clearance.

7. COMPLIANCE:

There is a total compliance & confirmation by the vendor to the scope & specifications, Curing Compound should be in strict compliance with the IS 9103 : 2007, there is no deviation whatsoever.

Quality is essence for this project. In case of receipt of any non-complained material at site, Supplier shall make his own arrangement to replace the same with immediate effect. PLL reserve all right to penalize supplier for supplying any non-complied products to PLL's site.

8. EFFECTIVE DATE

Supplier is authorized to make all necessary arrangements to pursue with and actually commence the Supply subject to the terms of this PO.

9. LD CLAUSE:

LD for delay in delivery shall be applicable after one week of grace period @ 0.5% of the value of undelivered quantity per week of delay or part

thereof subject to a maximum of 5% of undelivered order value.

10. APPLICABLE LAW

This PO is governed, construed and effected in accordance with the Laws of India.

Supplier shall comply with all applicable laws, rules and regulations for obtaining Regulatory authorities' approval, licenses, permits etc for the supply of materials.

11. DEFINED TERMS

The terms defined herein shall have the same meaning as assigned to them in the PO unless otherwise provided herein.

12. CORRESPONDENCE ADDRESS

PUNJ LLOYD LIMITED
Vill. Kapsada, Near Tiwrayia More,
Dharsiwa, Raipur-493221

13. POST ORDER COMMUNICATION PROTOCOL:

For Commercial Matters Original Documents /Invoices:

Contact Person at HO : Mr. Pallaw Kumar
Ph.: 0124 2620 242
E-Mail: pallawkumar@punjlloyd.com

Contact Person at Site : Imteyaz (Site Buyer)
Mobile No. : 09109993464
E-Mail: imteyazkhan@punjlloyd.com

14. AKNOWLEDGEMENT

Please acknowledge receipt of this PO and return one duplicate original to us within three (3) working days from the date of this PO.

Thanking You,

Yours faithfully,

For Punj Lloyd Limited

Accepted by

M/s SILKON ADDITIVES INDIA PRIVATE LIMITED

Authorized Signatory

Authorized Signatory



PURCHASE ORDER

Invoice To R.B.G. International Pvt. Ltd. SI Na Pa 8, Bharahawa E-Mail account@rbginternational.com		Voucher No 5	Dated 7-Jan-2020		
Supplier Silikon Additives India Pvt. Ltd. Haryana, India		Supplier's Ref./Order No 5	Other Reference(s)		
		Despatch through	Destination		
		Terms of Delivery			
SI No	Description of Goods	Due on	Quantity	Rate per	Amount
1	Supermix 350	7-Jan-2020	20000 Kg	Kg	
<small>For org: -Mail - admin@jellyworld.org</small>					INR
Amount Chargeable (in words)					
Indian Rupee 500000 Thousand Only			for R.B.G. International Pvt Ltd.		
Company's PAN : 609641712					
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Billing Address

GAYATRI PROJECTS LIMITED
C/O UPEIDA WORKS.,
Sector:A/02/01,Sushant Golf City,
Ansal API,LUCKNOW,U.P-226030.
Contact Person Mr.Pavan: 9437039352



QSF: 8.4.2.01

Purchase Order

To **SILKON ADDITIVES INDIA PVT LTD**
622P,Sector-38,Gurugram
Haryana-122001.
Contact: Mr.Udam Singh-9717887038

P.O. No. GPL/Gen/19-20/C-809
Date:February 13th 2020
Indent No:1775/10.02.2020

Dear Sirs,

With reference to your Quotation no:QT/004/31 dt.10.02.20, we are pleased to place the purchase order as per terms & conditions given below.

s.no.	Item Description	units	Qty	price/unit	Value (Rs.)
1	SILKON SUPERMIXPC 350 Admixture	KG	30000	████████	████████
				GST@18%	████████
				TOTAL	████████

Terms and conditions:

1	Price	As shown above
2	Our GST No.	09AAACG8040K1ZH
3	Transportation	Price is inclusive of Transportation.
4	Packing	In 230 kg barrels. Barrels are returnable to you.
5	Payment Terms	With in 45 days after delivery at our store
6	Delivery Schedule	within 4 days after placing the order.
7	GPL GST NO	09AAACG8040K1ZH
8	Delivery at	CAMP-3,Batmau.
9	Delivery address for Camp-3	Gayatri projects Limited, Camp-3, Bhatmau -Village, Jagdishpur - Tesil, Amathi- Dist, Uttar Pradesh, Pin : 227809/Contact no:Mr Vijay Kumar-7894438406,8327757899
10	Specifications	Specifications & Description as per your referred offer.
11	Jurisdiction	For all disputes and for all purposes -Hyderabad,Telangana only.

Kindly return the duplicate copy of this order, duly signed, as a token of your acceptance.

For GAYATRI PROJECTS LIMITED.


AUTHORISED SIGNATORY

Site Office:

Gayatri Projects Limited,UPDIEA

Near GD Goinka School,Ansal API,Sushant golf city

Lucknow-Uttar Pradesh-226030.



Regd.&Corp.Office

Gayatri Projects Limited,B1,6-3-1090

TSR Towers,Raj Bhavan RoadSomajiguda

Hyderabad 500082.Telangana.

Billing Address

GAYATRI PROJECTS LIMITED
 C/O UPEIDA WORKS.,
 Sector:A/02/01,Sushant Golf City,
 Ansal API,LUCKNOW,U.P-226030.
 Contact Person Mr.Pavan: 9437039352



QSF: 8.4.2.01

Purchase Order

To **SILKON ADDITIVES INDIA PVT LTD**
 622P,Sector-38,Gurugram
 Haryana-122001.
 Contact: Mr.Udam Singh-9717887038

P.O. No. GPL/Gen/19-20/C-807
 Date:February 10th 2020
 Indent No:1772/01.02.2020

Dear Sirs,

With reference to your Quotation no:QT/004/31 dt.10.02.20, we are pleased to place the purchase order as per terms & conditions given below.

s.no.	Item Description	units	Qty	price/unit	Value (Rs.)
1	SILKON WB30-Water Based Curing Compound	KG	15000	■	■
				GST@18%	■
				TOTAL	■

Terms and conditions:

1	Price	As shown above
2	Our GST No.	09AAACG8040K1ZH
3	Transportation	Price is inclusive of Transportation.
4	Packing	In 230 kg barrels. Barrels are returnable to you.
5	Payment Terms	With in 45 days after delivery at our store
6	Delivery Schedule	within 4 days after placing the order.
7	GPL GST NO	09AAACG8040K1ZH
8	Delivery at	CAMP-3,Batmau.
9	Delivery address for Camp-3	Gayatri projects Limited, Camp-3, Bhatmau -Village, Jagdishpur - Tesil, Amathi- Dist, Uttar Pradesh, Pin : 227809/Contact no:Mr Vijay Kumar-7894438406,8327757899
10	Specifications	Specifications & Description as per your referred offer.
11	Jurisdiction	For all disputes and for all purposes -Hyderabad,Telangana only.

Kindly return the duplicate copy of this order, duly signed, as a token of your acceptance.

For GAYATRI PROJECTS LIMITED:


 AUTHORIZED SIGNATORY




 Site Office:
 Gayatri Projects Limited,UPDIEA

Near GD Goeinka School,Ansal API,Sushant golf city
 Lucknow-Uttar Pradesh-226030.

Regd.&Corp.Office

Gayatri Projects Limited,B1,6-3-1090
 TSR Towers,Raj Bhavan RoadSomajiguda
 Hyderabad 500082.Telangana.



PURCHASE ORDER

Invoice To R.B.G. International Pvt. Ltd. SI Na Pa 8 Bhairahawa E-Mail: account@rbginternational.com.np		Voucher No 6	Dated 21-Jan-2020			
Supplier Silikon Additives India Pvt. Ltd. Haryana, India		Supplier's Ref /Order No 6	Mode/Terms of Payment Credit 90 days			
		Despatch through	Destination Bhairahawa, Nepal			
		Terms of Delivery				
Sl No	Description of Goods	Due on	Quantity	Rate	per	Amount
1	Supermix 350	21-Jan-2020	10000 Kg		Kg	00
2	Supermix PC550	21-Jan-2020	10000 Kg		Kg	00
Total			20000 Kg			INR
Amount Chargeable (in words) : Rs. 2000000.00						
Company's PAN 609641712		for R.B.G. International Pvt. Ltd. Authorized Signatory				

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R.B.G. INTERNATIONAL PVT LTD

BEST BUILDWELL (PVT.) LTD.

Head Office : 317 , IIIrd Floor , Best Arcade , Pkt, VI,
Sector- 12, Dwarka, New Delhi – 110075
Ph :- 42811300, 301, 302 Fax :- 42811303

PURCHASE ORDER

BBPL-BHAGWATI/JUNE; 2018/03

M.R.NO.:- As per site Requirement

To,

M/s Silkon Chemicals

Village Goela Tauru

Nuh- 122105,

Haryana

GSTIN : 06ARLPT6055E3ZH

Sub:- **Purchase Order of Silkon PCE 450**

Dear Sir,

We are pleased to place an order of Silkon PCE 450:-

S.No.	Description	Qty. Requirement	Rate	Amount
1	Silkon PCE 450	15000 Kgs	20000	3000000

Please confirm the order and deliver immediately at our Site i.e. The Bhagwati Co-op G.H. Society Ltd, Add.
Plot No. 1A, Sector-22, Dwarka, New Delhi.

Terms & Conditions:-

- 1 18% GST Excluding
- 2 Payment 100% Advance
- 3 Defected Material will be replaced by M/s Silkon Chemicals.
- 4 Billing in favour of M/s Best Buildwell (P) Ltd
Head Office: 317, IIIrd Floor, Best Arcade, Pkt. VI, Dector-12 Dwarka, New Delhi

Thanking You,

For Best Buildwell (P) Ltd


(Director/ G.M. Projects/ Purchase Manager)

(Received & Accepted)
M/s Eera Constructive Solution

(Auth Signatory)



Classic Engineers



ISO 9001:2008

PURCHASE ORDER

VENDER DETAIL		OUR DETAIL			
TO	M/S SILKON CHEMICALS VILLAGE GOELA TAURU, NUH-122105, HARYANA BANK DETAIL.:	<i>BILL TO</i>	<i>SHIP TO</i>		
		CLASSIC ENGINEERS	Classic Engineers at Maruti Suzuki India Ltd		
		MARUTI UDYOG LTD.			
		GURGAON HRYANA	IMT Rohtak, Haryana-124-001		
Vendor Code	SILKON - 001	PO/WO No.	CE/E/2018-19/160575		
Offer No.	BY MAIL:	PO Date	25.05.2018		
Offer Date	14-May-18	Project Cont. Person	Mr. Dinesh Mishra/Sanjay		
Contact Person	Mr. Sachin Tokas	Project Cont. No.			
Contact No.	9810056102	Prepared By	Bhanu		
E-Mail ID		Email ID	purchase@classicengineers.in		
Your GSTIN No.	06ARLPT6055E3ZH	Our GSTIN No.	06AABPT9675R1ZL		
SL. NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	SILKON PCE 450	KGS	25000		
ABOVE QTY IS TENTATIVE AND ACTUAL SHALL BE PAID AS PER SITE RECEIVE MATERIAL					
Amount in Words (INR): Twenty Five Lakh Seven Thousand Five Hundred Only		Sub Total		250000	
		IGST @ 18%		45000	
		Grand Total (Round Off)		295000	
Prepared By	 Auth. Signatory Bhanu Prakash Bhatt	Approved By	Manoj Tyagi (PO Acceptance)		
Terms & Conditions: <ol style="list-style-type: none"> 1 Payment Terms: After receipt of material at site 2 Purchase order No. must be quoted on all correspondence include channel & bills 3 Any change in the contract is valid only is is accepted by us in writing 4 Other Terms and condition remain same as discussed. 5 IGST excluding on Items 18% 6 delivery at our above site in Rohtak 					



ESSEL HOUSING PROJECTS PVT. LTD.

Proposal Order		P.O. Number	65
		P.O. Date	03-May-2018
Order To	Silkon Chemicals	Delivered To	EsseL Housing Projects Pvt. Ltd.
	Village Goela Tauru Nuh. - 122105 Haryana GSTIN : 06ARLPT6055E3ZH		
Contact Name	Mr. Sachin Tokas	Contact Name	
Contact No.	+91-9810056102	Billing Address	
Essel Housing Projects Pvt. Ltd., Suncity Business Tower, 2nd Floor, Golf Course Road, Sector-54, City Gurugram, State Haryana, Pin Code 122002			

S.No.	Description	Unit	Rate (Rs.)	Qty.	Amount (RS)
1	Silkon PCE 450	Kgs.	1000	30000	30000000

Total: 30000000

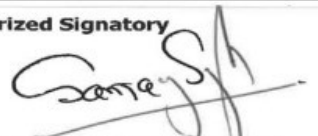
Gross Amount		
IGST	18%	5400000
Bill Amount		35400000
Round Off		
Net Amount		35400000

Amount in Words:

Terms and Conditions:-

Taxes Rates are exclusive of GST @ 18% on Item

- 1 Delivery: Within 7-10 days after confirm order and advance payment.
- 2 Above rates are F.O.R. at site.
- 3 Payment Terms: 30% advance and balance after prorata delivery of material at site.
- 4 Dispute if any subject to Haryana Jurisdiction only.

<p>Authorized Signatory</p>  <p>For EsseL Housing Projects Pvt. Ltd.</p>	<p>Authorized Signatory</p> <p>For Eera Constructive Solution</p>
--	--

Regd. Office: LGF-10, Vasant Square, Plot-A, Sector-B, Pocket-V Community Centre, Vasant Kunj, New Delhi-110070 (India) CIN:U70109DL1999PTC099190

Corp Office : Suncity Business Tower, Second Floor, Golf Course Road, Sector-54 Gurgaon-122002, Haryana Phone: 0124-4691000 Fax: 0124-4691010

Email : esselcity@suncityproject.com. Wdbsite : www.suncityprojects.com



SILKON
ADDITIVES INDIA PVT LTD

Lapkon 228

Plasticised expanding grout admixture

Lapkon 228 is an admixture for cementitious grouts where a reduced water/cement ratio and positive expansions are required. Applications include bed grouting, duct grouting, non-shrink infilling, post tensioning in various structure and jointing.

Product usages and advantages

- Gaseous expansion system compensates for plastic shrinkage and settlement in properly designed cementitious grout.
- Reduced water/cement ratio mixes in the grout mix ensures low permeability and long term durability in service.
- Gives grout high fluidity with low water/cement ratio, thus making placement or injection of the grout easy.
- No metallic iron content to corrode and cause staining or deterioration due to rust expansion in the grout.
- Composition allows high early strength development in grouts, without the use of chlorides.

Standards compliance

Lapkon 228 is a suitable pressure grouting admixture complying with BS: 8110 Part 1-1985, Section 8.9.4.6.

Description

Lapkon 228, a plasticised expanding grout admixture is supplied as a powder. The material is a combination of a plasticising agent and a gas producing expansion medium. The plasticizing agent allows the use of a reduced water/cement ratio with consequent increased strength and durability. The expansive medium resists the natural settlement and plastic shrinkage of the grout and aids stability and cohesion.

Technical support

Silkon offers a comprehensive range of high performance, high quality concrete repair and construction products. In addition, Silkon offers technical support service to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the country.

Properties

- Chloride content : Nil as per BS:5075
Compressive strength: The plasticising action of Lapkon 228 allows reduction of the water cement ratios of cementitious grouts whilst maintaining flow properties. This gives improvement in strength and long term durability when cured under restraint.
- Setting Times : Lapkon 228 does not significantly alter the setting times of cement based grouts.
- Expansion : The controlled positive expansion in Characteristics unset grouts incorporating Cebex 100 overcomes plastic settlement when measured in accordance with ASTM C827. An unrestrained expansion of up to 4% is typical.
- Time for expansion : 15 minutes - 2 hours. Temperatures above 25°C may slightly reduce these times.
- Compatibility : Lapkon 228 is compatible with all types of portland cement. Lapkon may be used in mixes containing certain other Silkon admixtures. Silkon shall be contacted for further information.



SILKON
ADDITIVES INDIA PVT LTD

Lapkon 228

Specification clauses

Performance specification

All grouting (specify details and areas of application) must be carried out with a cement based grout incorporating a plasticised, expanding powder admixture. The grout admixture must be iron-free and chloride-free and shall be added to the cement grout in the proportion of 228g per 50kg of cement. The grout admixture shall provide an expansion of upto 4% in the fresh grout, by means of a gaseous system. The grout admixture must be stored, handled and mixed strictly in accordance with the manufacturer's instructions.

Supplier specification

All grouting (specify details and areas of application) must be carried out using a cement based grout, incorporating Lapkon 228 manufactured by Silkon and applied strictly in accordance with the manufacturer's technical datasheet.

Application instructions

Mixing

For best results a mechanically powered grout mixer must be used. For quantities upto 50kg, a slow speed drill fitted with a high shear paddle is suitable. Large quantities will require a high volume drum mixer. It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a holding tank with provision for gentle agitation to maintain fluidity. The selected water content should be accurately measured into the mixer. The cement (and sand if required) shall be slowly added to Lapkon 228. Mixing shall be continued for 5 minutes, making sure that a smooth even consistency is obtained.

Application

It shall be ensured that areas to be grouted are clean,

sound, and then prewetted. The unrestrained surface area of the grout must be kept to a minimum. The grout shall be placed within 20 minutes of mixing to gain the full benefit of the expansion process. Usual placing or pumping methods shall be adopted ensuring a continuous operation.

Curing

On completion of the grouting operation, any exposed areas which are not to be cut back should be thoroughly cured by means of water application, concurring compound curing membrane or wet hessian.

Limitations

Lapkon 228 is incompatible with High Alumina Cement.

Estimating

Packaging

Lapkon 228 is supplied in 228 g and 25 kg packs.

Dosages

OPC	Concreting Sand	Water	Lapkon 228	Approx. Yield
50kg	-	20-22 litres	228 g	36 litres
50kg	50 kg	22-24 litres	228 g	57 litres

Note : For grout, mortar or concrete mixes with an aggregate/ cement ratio more than 1, 4 x 228 g units of Lapkon 228 per 100 kg of cement, shall be used.

Effects of overdosing

Drastic overdosing of Lapkon 228 increases expansion and may cause frothing.

Storage

Shelflife

Lapkon 228 has a shelf life of 6 months if kept in a dry store in its original packing. High temperature and humidity



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Precautions

Health and Safety instructions

Lapkon 228 is of low hazard.

Contact with the skin and eyes, or inhalation of dust should be avoided. Suitable protective clothing, gloves eye/face protection and dust mask should be worn. In case of contact with skin, it shall be washed with clean water. In case of contact with eyes, it shall be rinsed immediately with plenty of water and medical attention shall be sought immediately.



Lapkon G5

Cementitious Free flow, high strength, non-shrink grout

Lapkon G5 is a precision grout which is essentially withstand static and dynamic loads. Typical applications would be the grouting of base plates of turbines, compressors, boiler feed pumps, Precast Building projects etc., It can also be used for anchoring a wide range of fixings. These include masts, anchor bolts and fence posts. Lapkon G5 is supplied as a ready to use dry powder. The addition of a controlled amount of clean water produces a free flowing, non-shrink grout for gap thicknesses up to 100mm. Lapkon G5 is a blend of Portland cement, graded fillers and chemical additives which impart controlled expansion in the plastic state whilst minimizing water demand. The low water demand ensures high early strength. The graded fillers are designed to assist uniform mixing and produce a consistent grout.

Product features and advantages

- Gaseous expansion system compensates for plastic shrinkage and settlement in plastic state
- No metallic iron content to cause staining.
- Pre-packed material overcomes onsite batching variations
- Develops high early strength without the use of chlorides
- High ultimate strength ensure the durability of the hardened grout
- Free flow ensures high level of contact with load bearing area

Technical Specification

Compressive strength : (BS 1881 - Part 116: 1983)

Age (days)	Compressive strength (N/mm ²)	
	Flowable (W/P 0.18)	Pourable (W/P 0.165)
1	25	27
3	46	52
7	56	58
28	67	71

Flexural strength (BS 4551, 1998)

Age (days)	Flexural strength (N/mm ²)	
	W/P 0.18	
1	2.8	
3	7.0	
7	9.0	
28	11	

Tensile strength 3.7N/mm² @ 28 days (W/P - 0.18)

Time for expansion Start : 20 minutes (after mixing) Finish : 120 minutes

Fresh wet density approximately 2225kg/Cum depending on actual consistency used

Unrestrained expansion 2 - 4 % in the plastic state enables to Overcome shrinkage.

Pressure to restrain 0.004 N/mm² approx.

Consistency of grout mix

The quantity of clean water required to be added to a 25kg bag to achieve the desired consistency is given below:

Pourable : 4.125 litres

Flowable : 4.5 litres

The selected water content should be accurately measured into the mixer. The total content of the Lapkon G5 bag should be slowly added and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency.

Application instructions

Preparation

Foundation surface

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitence, it must be cut back to a sound base. Bolt holes and fixing pockets must be blown clean of any dirt or debris.

Pre-soaking

Several hours prior to placing, the concrete substrates should be saturated with fresh water. Immediately before grouting takes place any free water should be removed with particular care being taken to blow out all bolt holes and pockets.

Base plate

It is essential that this is clean and free from oil, grease or scale. Air pressure relief holes should be provided to allow venting of any isolated high spots.



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Lapkon G5

Mixing and placing

Mixing

For best results a mechanically powered grout mixer should be used. When quantities up to 50kg are used, a heavy duty slow speed drill (400-500 rpm) fitted with a paddle is suitable.. Larger quantities will require a heavy duty mixer. To enable the grouting operation to be carried out continuously, it is essential that sufficient mixing capacity and labor are available. The use of a grout holding tank with provision to gently agitate the grout may be required.

Placing

At 30°C place the grout within 20 minutes of mixing to gain full benefit of the expansion process. Lapkon G5 can be placed in thicknesses up to 100mm in a single pour when used as an under plate grout. For thicker sections it is necessary to fill out Lapkon G5 with well graded silt free aggregate to minimise heat build up. Typically a 10mm aggregate is suitable. 50 - 100% aggregate by weight of Lapkon G5 can be added.

Curing

On completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of Silkon WB40 curing membrane, continuous application of water and/or wet hessian.

Limitations

Low temperature working

When the air or contact surface temperatures are 10°C or below on a falling thermometer, warm water (30 - 40°C) is recommended to accelerate strength development. For ambient temperature below 10°C the formwork should be kept in place for at least 36 hours. Normal precautions for winter working with cementitious materials should then be adopted. High temperature working At ambient temperatures above 40°C, cool water (below 20°C) should be used for mixing the grout prior to placement.

Packaging

Lapkon G5 is supplied in 25 kg moisture resistant bags.

Yield

Allowance should be made for wastage when estimating quantities required. The approximate yield per 25 kg bag for different consistency is :

Consistency	Pourable	Flowable
Yield (litres)	12.5	13.3

Storage

Shelf life

Lapkon G5 has a shelf life of 6 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations, the shelf life may be reduced.

Precautions

Health and Safety instructions

Lapkon G5 is alkaline and should not come into contact with skin and eyes. Inhalation of dust during mixing should be avoided. Gloves, goggles and dust mask should be worn. If contact with skin occurs, it shall be washed with water. Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought.

Fire

Lapkon G5 is non flammable.

Additional information

For further details about the use and selection of grouts refer to the Silkon Information module entitled 'Precision grouting in the Construction industry'.



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Silkon RB95

Silkon RB95 spray applied membrane to retain moisture in concrete for effective curing. Suitable for all general concreting applications and of particular benefit for large area concrete surfaces, such as airport runways, roads and bridgeworks. The curing compound is used for the curing of Pavement Concrete

Product usages and advantages:

- Improved curing of concrete enhances cement hydration and provides a more durable concrete
- Control of moisture loss improves surface quality, reducing permeability, producing a hard-wearing, dust free surface and minimising potential for surface cracking and shrinkage
- Light reflective grades minimise solar temperature gain
- Spray application reduces labour costs and eliminates the need for alternative curing systems.

Description

Silkon RB95 is a concrete curing compound is polymer based continuous film forming curing compound and is supplied as aluminised polymeric resin solution drying to a silver film on application.

Specific Gravity : 0.81 - 0.83

When first applied to a fresh cementitious surface the product forms a continuous, non-penetrating coating. This coating dries to a form a continuous film which provides a barrier to moisture loss ensuring more efficient cement hydration, improved durability and reduced shrinkage. The aluminised grades contain aluminium flakes to meet specifications for reduction of solar temperature gain.

Technical support

Silkon provides a technical advisory service supported by a team of specialists in the field.

Standards compliance

Silkon RB95 has been tested in accordance with ASTM C309-81 for curing efficiency.

Application

Silkon RB95 should be stirred before use to ensure dispersion of settled material.

Silkon RB95 should be spray applied to the surface of fresh concrete. Application should begin as soon as the concrete is free from surface water. Do not apply if bleed water is forming or present on the concrete surface.

The spray nozzle should be held approximately 450mm from the concrete surface and passed back and forth to ensure complete coverage. Pump pressure should be maintained to give an even, fine spray. After spraying, no further application of water or other material is necessary to ensure continued curing. The concrete surface should not be disturbed until it has sufficient strength to bear surface loads. The applied film should not be walked on before it is fully dry and care should be taken to ensure that the film is not broken.

Silkon RB95 may also be applied to the surface of newly hardened concrete immediately after demoulding. In such cases the concrete surface should be sprayed with water to saturate it prior to the application of Silkon RB95. Dry surfaces may prevent correct film formation and cause absorption of the Silkon RB95 which may lead to staining and difficulty in later removal.

Coverage rate

The recommended coverage rate is between 3.5 and 5.0 sq.m / litre (0.200 to 0.285 litres/sq.m). Coverage rates outside this recommended range may be used if necessary and suitable to meet specific requirements. Contact local Silkon office for advice in such cases.

Packaging

Silkon RB95 is supplied in 50 and 235 ltrs containers.

Storage

Silkon RB95 has a minimum shelf life of 6 months, when stored in the original unopened containers under normal warehouse conditions.



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Silkon RB95

Health and Safety

Silkon RB95 should not be swallowed or allowed to come into contact with skin and eyes. Avoid inhalation of vapours and ensure adequate ventilation.

Suitable protective gloves and goggles should be worn. Some people are sensitive to resins and solvents. Resin Barrier creams provide additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream followed by washing with soap and water - do not use solvent.

In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire

Silkon RB95 is flammable. Do not expose to naked flames or other sources of ignition.

Flash point : 40^oC



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Silfloor FH

Non metallic, High abrasive resistant surface hardening cementitious floor hardner

Silfloor FH provide a highly abrasion resistant surface to concrete floors by the dry shake-on method which ensures that the hardwearing surface bonds monolithically to the base concrete. They are ideally suited for all industrial areas subject to the heaviest traffic, e.g. loading bays, trucking lanes, car parks, workshops, machine shops, ramps and spillways.

Product usages and advantages

- Non metallic - does not rust or stain.
- Provides a hard, abrasion resistant surface
- Forms monolithic bond with base concrete

Easy and economical to apply

Standards compliance

Abrasion resistance (IS : 1237-1980)
Silfloor FH has been tested as per IS:1237 - 1980 against control concrete for abrasion resistance.
Test results showed that Silfloor FH improves the abrasion resistance of concrete by 225% when tested as per guidelines in IS:1237 - 1980.6.

Description

Silfloor FH is quality controlled, factory blended powder which are ready to use on site. They contain special hardwearing aggregates which have been selected for abrasion and wear resistant properties as well as shape and size. These latter considerations, together with the use of high performance workability admixtures, produce a material which is easy to trowel into the surface of fresh, wet concrete. Silfloor FH cure monolithically to provide a dense, non-porous surface which is extremely hardwearing and abrasion resistant. Monolithic cure ensures that problems normally associated with thin 'granolithic' screeds, viz., shrinkage, cracking, etc., are completely overcome. Being non-metallic, Silfloor FH provide a non-slip surface which will never rust and disintegrate. All concrete floors shall be surfaced or broadcast with Silfloor FH a non-metallic monolithic surface floor hardening compounds containing rust free, hardwearing aggregates. The aggregates shall have a Moh's hardness of not less than 10 for Silfloor FH.

Technical support

Silkon offers a comprehensive range of high performance, high quality concrete flooring construction products. In addition, Silkon offers technical support service to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the country.

Properties

Compressive strength

Silfloor FH shall possess a minimum compressive strength of 60N/mm². when tested as per IS: 516-1959.

Application instructions

Base concrete

The base concrete should have a minimum cement content of 300 kg/m³. The concrete mix should be designed to minimise segregation and bleeding. The concrete should have a slump of between 75 and 100 mm. Use of Silkon's water reducing admixture is recommended. The base concrete should be laid and compacted in accordance with good concrete practice. Accurate finished profile and minimum laitance build-up should be ensured. Particular attention should be paid to bay edges and corners to ensure full compaction.

Silfloor FH is applied for different types of industrial use.

Application rate (kg/m ²)	Intended Traffic Use	Average Wear (IS:1237-1980)
6.5	Heavy	<2mm
4.5	Medium	>2 <3.5mm
3.0	Light	>3.5 <4mm

It is recommended that the floor be marked off into bays of known area. Sufficient material should then be laid out to meet the required spread rates.

Application of Silfloor FH can begin when the base concrete has stiffened to the point when light foot traffic leaves an imprint of about 3mm. Any bleed water should by now have evaporated.

Silfloor FH is applied in two stages.

(a) The first application is made using 50% to 70% of the total material. Silfloor FH is evenly broadcast onto the concrete surface. When the material becomes uniformly dark by the absorption of moisture from the concrete this first application can be floated. Wooden floats or, on large areas, the power trowel with disc may be used. It is important, however, that the surface is not over worked.



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Silfloor FH

(b) Immediately after floating, the remaining Silfloor FH is sprinkled evenly over the surface. Again moisture is absorbed and the surface can be floated in the same way as before. Final finishing of the floor using a power trowel can be carried out when the floor has stiffened sufficiently so that damage will not be caused.

Timing of Application

The timing of application Silfloor FH is important and critical. If applied too early, bleed or excess water will wash away the cementitious content of the products, thereby making them ineffective. Also denser aggregates sink into the concrete. If the application of Silfloor FH is done too late, there will not be sufficient water/moisture to absorb the material into the concrete. Material forcibly applied and trowelled thus, will cause cracks on the surface later, as there is no water/moisture to hydrate the product.

Curing

Tests have shown that proper curing of concrete floors treated with products such as Silfloor FH is essential to ensure the physical properties of the floor.

The most efficient method of curing by using Silkon WB40, curing membrane which conforms to ASTM and DOE specifications.

However, in indoor applications where curing conditions are less arduous and breakdown of the membrane slower, alternative approved methods of curing such as polythene sheeting or water ponding are acceptable.

Limitations

- For concretes with optimised water cement ratios, Silfloor FH shall not be broadcast in excess of 3 - 4 kg /m². For such applications, consult Silkon Technical Team.
- Silfloor FH is not advised for broadcast over concrete in subzero temperatures, such as, floorings for cold storages etc. However, concrete on which Silfloor FH has been applied can be subjected to sub zero temperatures after curing.

Packaging

Silfloor FH is supplied in sealed 25 kg HDPE bags.

Storage

If kept in original undamaged packing, the shelf life of Silfloor FH should be atleast 12 months under normal warehouse conditions.

Precautions

Health & Safety instructions

Silfloor FH contains portland cement and are therefore alkaline when in contact with water. Prolonged contact with the skin should be avoided. Any eye contamination should be washed immediately with plenty of clean water and medical advice sought.

Fire

Silfloor FH is not flammable.



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Silkon Micro Silica

Silkon Micro Silica is a super pozzolan - a finely powdered material, containing amorphous (reactive) silica, when added to wet concrete mix, it results in better quality and durability and it gives higher strength. It complies with **ASTM C1240 & IS 15388**.

Usages and Advantage

- Higher compressive strength by 10-25 %
- Reduces the rate of carbonation – increases the durability
- Lower permeability – resistance to penetration of water, chloride & other chemicals
- Lower free lime formation - delays ettringite and thaumasite formation
- Controls bleeding in fresh concrete
- Lower Heat of Hydration, which prevents formation of cracks.

PROPERTIES

Appearance	Very Fine Powder
Colour	Dark Grey
Odour	Odourless
Mean Particle Size	25 microns
Retention of 325 mesh	Below 5% (w/w)
SiO ₂ – Silica	92 % minimum
Humidity	1 % maximum
Loss on Ignition at 800°C	4 % maximum

Standard Compliance

It complies with **ASTM C1240 & IS 15388**.

Technical support

Silkon provides a technical advisory service for on-site assistance and advice on mix design, admixture selection, evaluation trials and dispensing equipment.

Dosage

The optimum dosage of Silkon Micro Silica to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 5 to 10 Kgs/100 kg of cementitious material.

Over dosages

Dosage outside the normal range quoted above can be used to meet particular mix requirements. Over dosage may cause stickiness in fresh concrete. Contact Silkon for advice in these cases

Packaging

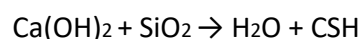
Silkon Micro Silica is available in 25kg Bags.

Storage

Silkon Micro Silica has a minimum shelf life of 12 months provided the temperature is kept within the range of 2⁰C to 50⁰ C protected from sunlight. If the temperature of the product falls outside this range then contact local Silkon office for advice.

HOW IT WORKS

1. Pozzolonic Effect : When water is added to cement, hydration occurs as shown below: Ordinary Portland Cement (OPC) + H₂O → CSH (Calcium silicate hydrate) + Ca(OH)₂(Free lime) The free lime does not contribute to strength of concrete. When combined with carbon dioxide, it forms a soluble salt, which leaches through the concrete causing efflorescence and wear & tear of concrete, a familiar problem. This makes the concrete more vulnerable to chemical attack and deterioration. When CETEX Micro Silica is added, the following reaction takes place:





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Silkon Micro Silica

This reaction reduces the amount of calcium hydroxide (free lime) in the concrete.

2. Micro Filler Effect: It is an extremely fine material, with an average diameter much finer than the cement. It gets well distributed in the wet concrete paste, thus blocking the bleed-water channels. It also results in better compaction and thereby higher strength.

Health and safety instructions

Silkon Micro Silica does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting. For further information consult the Material Safety Data sheet available for this product.

Fire

Silkon Micro Silica is non- flammable.

Cleaning and disposal

Spillages of Silkon Micro Silica should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority



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Silkon WB 40

Silkon WB 40 is a solution of special pigmented wax emulsion formulated for application to freshly-placed concrete. It dries to form impervious film on the surface. It ensures that the concrete keeps as moist as possible during the vital curing period. Efficient curing is particularly important in exposed situations such as concrete roads and run ways etc., where the surface is subjected to the drying action of heat, direct sunlight or wind. Traditional curing methods using wet hessian, straw, sand or polythene sheeting are never completely efficient as it is not possible to exclude air entirely from the face of the concrete. Silkton WB 40 curing compound membrane replaces these older methods, by virtue of its easy application, higher efficiency and saving in labor and material costs.

Product usages and advantages

- Give water repellent film.
- Reduces surface temperature and crack formation.
- Prevent early water evaporation.
- Economical and easy to use.
- Reflects more ultraviolet rays.
- Non-Toxic and non-Flammable.
- Eliminates use of water curing, hessian or sand.

Description

Silkon WB 40 is based on white liquid low viscosity, wax emulsion and white pigments. Concrete curing compound for fresh concrete, screeds, floors and verticals surfaces. Complies to ASTM C-309-74.

Purpose

To protect concrete against excessive drying out by Retaining the moisture and water in fresh concrete.

Packing

200 LTR HDPE Barrels.

Where to Use

- For efficient and positive curing of:
- Bridge, dams, airport, runways, reservoirs.
- Road, external floors canal linings.
- Retaining vast floorings and rendering highways.
- Roof decks and shell roofs. Pre stressed beams and piers.

Technical data

- Appearance: White Liquid
- Specific Gravity: 0.99 - 1.020
- Dry Film: translucent
- Application Temperature: Min. 5⁰ C

Application

Stir well before use. After application the area concerned must be protected from rain for at least 2-3 hours.

Storage

Silkon WB 40 has a storage life of maximum 6 months in unopened drums, protect from of direct sunlight.

Handling Precaution

Silkon WB 40 is water based non-hazardous, non toxic. Avoid contact with skin and eyes.

Coverage

Silkon WB 40 has coverage of 4 to 6 m²/ liter.



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Silplast PMF100

Silplast PMF100 is Shrinkage compensated, fibre reinforced, single component, polymer modified, cementitious, repair mortar system is used for the reinstatement of concrete in small localized patch repairs. Silplast PMF100 is alkaline in nature and will protect embedded steel reinforcement. It is specially designed for location where high compressive strengths are required. The mortar is suitable where superior resistance is required to chlorides and carbon dioxide. Silplast PMF100 is a Dual Shrinkage expansion, fibre reinforced, single component, polymer modified, cementitious, repair mortar system supplied as a ready to use blend of dry powders, which requires only the addition of clean water to produce a highly consistent, repair mortar suitable for structural concrete and masonry repairs. Silplast PMF100 may be hand & trowel applied, please see application method statement for details.

Usages And Advantages

- Vertical and overhead repairs to restore 'cover concrete'
- General concrete and masonry repairs
- Voids greater than 10 mm deep
- Repairs to honeycombing
- Larger scale repairs where formwork cannot be erected
- The dimensions of the repair remain stable; and thus eliminating failure, due to shrinkage cracking.
- This in turn leads to a series of associated benefits :
- Cost effective - shrinkage control enables repairs to be completed 'right first time'
- Enhanced durability - works in tandem with extremely low permeability to prolong effective working life
- Compatibility - aligns performance closer than ever before, to that of host concrete
- User friendly - specifically developed to provide an easy to apply product suitable for local conditions
- Definable performance - positive benefits are easily demonstrated via a single, simple measurement

Technical support

Silkon offers a technical support package to specifiers, end users and contractors as well as on-site technical assistance in locations all over the country.

Technical Properties

These results were obtained at Water: Powder ratio of 0.16 and temperature @ 30°C under controlled laboratory conditions.

Compressive strength	7 Days	52 N/mm ²
	28 Days	72 N/mm ²
Flexural strength	28 days	>10 N/mm ²
Percentage water absorption		< 2%
Rapid chloride permeability		<1800 Coulombs
Tensile Strength	28 days	> 4 N/mm ²
Permeability		< 6 mm
Drying Shrinkage	7 Days	<350 Microstrain
	28 Days	<500 Microstrain

Recommended limits for a single application are:

Minimum applied thickness	: 10 mm
Overhead sections	: up to 10 mm thick
Vertical sections	: up to 12 mm thick
Small pockets or horizontal	: up to 100 mm thick

Application Methodology

Surface preparation

Saw cut or cut back the extremities of the repair locations to a depth of at least 10mm to avoid feather edging and to provide a square edge. Break out the complete repair area to a minimum depth of 10mm up to the saw edge. Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Where breaking out is not required, roughen the surface and remove any laitance by light scrubbing or grit sand blasting. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be assessed by a pull off test. For vertical renders the concrete substrate should have surface profile of min 500 microns.

Zinc Rich Primer Coat

It is likely that, steel reinforcement in the area around a patch repair, particularly in a chloride contaminated environment, will typically corrode after the repairs are carried out, referred to as the incipient anode or Halo effect.

Silkon zinc primer, two component, zinc rich epoxy based anti-corrosive protective coating should be brush applied over the prepared & dry surface of the exposed rebars and allowed to completely dry prior to application of Silplast PMF100 repair mortar.



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Silplast PMF100

Priming

Mix the base and hardener components of Superbond BA, two component epoxy bonding agent with a paddle mixer for 3-5 minutes and brush apply in a thin layer over the prepared old concrete substrate to be repaired and allow the epoxy bonding agent to become tacky. Tacky condition will exist from 1-2 hours @30⁰C from the application time.

Mixing

Silplast PMF100 repair mortar shall be prepared by adding & mixing the 25 kg dry powder and recommended water of 4 litres (w/p = 0.16) into a plastic container of suitable size using a paddle mixer for 3 - 5 minutes until it attains a trowellable consistency . The mixed mortar should be applied to the prepared concrete surface or to the tacky Superbond applied surface . Superbond BA applied surface will attain tacky condition from 1-2 hours @ 30⁰C from the application time.

Note :

- Do not apply Silplast PMF100 repair mortar over tack free or pre-tacky condition of Superbond BA since it acts as a debonding agent.
- Under no circumstances part mixing or additional is not allowed. Either of these two actions will adversely affect material performance.

Packaging

Silplast PMF100 : 25 Kg Bags

Yield : 13.5 Liters

Cautions:

- Silplast PMF100 should not be used when the ambient temperature is below 5°C and falling.
- Silplast PMF100 should not be part mixed, nor part bags used.
- Silplast PMF100 should not be exposed to running water either during application or prior to final setting time of mortar.

Shelf Life

Silplast PMF100 has a shelf life of 6 months if kept in a dry store in the original, unopened bags or packs

Health and Safety

Silplast PMF100 contains cement powders which, when mixed with water or upon becoming damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of the dust and contact with the skin or eyes. Wear suitable protective clothing - eye protection, gloves and respiratory equipment (particularly in confined spaces). The use of barrier creams to provide additional skin protection is also advised. In case of contact with the skin, rinse with plenty of clean water, then cleanse thoroughly with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do **not** induce vomiting.

Fire

Silplast PMF100 is non flammable



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Silplast R15

Silplast R15 is general purpose, non-shrink, cementitious micro concrete which is used for repairs to damaged reinforced concrete elements, particularly where access is restricted and where vibration of the placed material is difficult or impossible. It is suitable for various structural strengthening measures such as encasement build-ups, jacketing, piletop encapsulation resin system, etc.

Silplast R15 is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a free flowing non-shrink repair micro concrete. The material is based on Portland cements, graded aggregates and fillers, and additives which impart controlled expansion characteristics in the plastic state, while minimising water demand. The low water requirement ensures high early strength and long-term durability. For larger repairs, the mixed Silplast R15 may be modified by the addition of 5mm to 12mm clean, graded, saturated surface dry aggregates at site in ratio of 50-100 %. can be applied in sections up to 100mm deep. For larger sections, the addition of approved aggregates may be required. This will depend on the specific configuration of the repair location For exceptionally large repairs contact with Silkon technical team.

Usages and Advantages

- Gaseous expansion system compensates for shrinkage and settlement in the plastic state.
- Can be pumped or poured into restricted locations.
- Highly fluid to allow for placement without vibration.
- Pre-packed to overcome site-batched variations.
- Rapid strength gain to facilitate early reinstatement.
- High ultimate strengths and low permeability of cured repair.
- Contains no chloride admixture.
- Ensures piletop integrity as part of a waterproofing system

Technical support

Silkon offers a technical support package to specifiers, end users and contractors as well as technical on-site assistance in locations all over the country.

Properties

These result are obtained at a water:Powder ratio of 0.16 @ 30°C under controlled laboratory conditions.

Test Typical result at 30°C Compressive strength (N/mm²) (Tested on 70.7mm cubes as per BS 4551-80)

1D	3D	7D	28D
11	32	42	53

Tensile strength 2.0N/mm² @ 28 days

Flexural strength (BS4551 - 80) 5N/mm² @ 28 days

Young's Modulus 25 kN/mm²

Expansion characteristics
Unrestrained expansion (ASTM C827 - 1987) 1 to 4%.

Pressure to restrain
Plastic expansion Approx. 0.004N/mm²

Coefficient of thermal expansion 10 - 12 x 10⁻⁶/ °C.

Thermal conductivity 1.5 W/m°C

Fresh wet density (Mixed density @27°C) 2100 - 2200 kg/m³

Application Methodology

The fluid micro-concrete repair material shall be a single component, cement based, micro-concrete to which only the site-addition of clean water (and approved graded coarse aggregates where specified) shall be permitted. The micro concrete shall contain no metallic aggregates, or chlorides and shall be shrinkage compensated in the plastic state. The micro concrete in the flowable consistency should achieve a compressive strength of not less than 11N/mm² after 24 hours, 42N/ mm² after 7 days and 52 N/mm² after 28 day s at 30°C. Most importantly, the cured microconcrete shall contain no metallic aggregates, or chlorides and shall be shrinkage compensated in the plastic state. The unrestrained expansion shall be between 1 - 4%. The flexural strength shall not be less than 5 N/mm² @ 28 days. The microconcrete shall have a coefficient of thermal expansion similar to that of the host concrete. The mixed density of microconcrete shall exceed 2100 kg/m³ at 27°C.



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Silplast R15

Preparation

The unrestrained surface area of the repair must be kept to a minimum. The formwork should include drainage outlets for pre-soaking and, if beneath a soffit, provision for air venting. Provision must also be made for suitable access points to pour or pump the mixed micro-concrete in place. Defective concrete surfaces must be cut back to a sound base. Smooth surfaces should be mechanically roughened. Corroded reinforcing steel should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits. It is important to clean the steel to a bright condition. Grit-blasting is recommended. One coat of Zinkrich Primer should be applied on the reinforcing steel. If any discontinuity in the applied film is noticed, one more coat has to be applied. Several hours prior to placing, the concrete substrates should be saturated with clean water. Immediately prior to placing, any free water should be removed. Alternatively, all prepared concrete substrates should be primed using Silbond BA, a slow - setting epoxy bond aid. Silbond BA be applied only on dry substrate.

Cautions

For repair sections generally deeper than 100mm it may be necessary to mix the Silplast R15 with properly graded 5mm to 12mm silt-free aggregate to minimise temperature rise. The quantity of aggregate required may vary depending on the nature and configuration of the repair location. The typical results with a few aggregate proportions, for various applications are furnished below for guidelines.

These results are obtained with using graded aggregate (SSD) under controlled laboratory conditions

W/P Ratio : 1 : 0.75 (By weight)

Water: Powder ratio : 0.16 (By weight)

Compressive strength (N/mm²)

1 D	3 D	7 D	28D
16	38	48	58

Workability : Flowable

Note : W/P shall not be increased under any circumstances.

Packaging

Silplast R15 is supplied in 25 kg moisture resistant bags.

Yield

Approximately 13.0 litres per 25 kg bag. Actual yield per bag will depend on the consistency of Silplast R15 and quantity of coarse aggregate added.

Shelf Life

6 months if kept in a dry store in the original, unopened bags. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

Health & Safety

Silplast R15 contains cement powders which, during normal use, have no harmful effect on dry skin. However, when Silplast R15 is mixed, or becomes damp, alkali is released which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Suitable gloves, eye protection and dust masks shall be worn. The use of barrier creams is recommended. In case of contact with skin, it shall be washed with clean water. In case of contact with eyes, it shall be rinsed immediately with plenty of clean water and medical advice shall be sought. If swallowed, medical attention shall be sought immediately - Vomiting should not be induced.

Fire

Silplast R15 is non-flammable.



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Silproof EC

Silproof EC is a two component acrylic polymer modified cementitious coating which consists of liquid acrylic emulsion. It requires only the addition of clean water at site to produce an easily brushable coating. It is a high performance elastomeric cementitious waterproof coating to protect atmospherically exposed reinforced concrete structures from attack by acid gases, chloride ions, oxygen & water. The product can be used on concrete, brick and block work substrates and is equally suitable for new and existing structures. The product is designed to reface and even out variations in concrete and masonry surfaces and bridge shrinkage cracks. It provides a seamless, flexible waterproof coating suitable for water tanks, reservoirs, drainage culverts basements, roofs, toilets & wet areas. The product provides a tough durable water resistant coating which can withstand light pedestrian traffic and also has excellent weather resistance for exterior applications.

Product usages and advantages

- Approved for use in contact with potable water.
- Withstands high positive and negative hydrostatic pressures
- Excellent crack accommodation after immersion.
- Excellent bond to concrete and masonry.
- Long working life.
- Easy application by brush, roller, trowel or spray.
- Bonds to green or damp concrete.
- Effective barrier to sulphates and chlorides.

Standards compliance

Silproof EC meets the requirements of BS 6920, WRAS. approved for use in contact with potable water up to 50°C. DIN 1048 : Water Penetration Test.

Technical support

Silkon offers technical support service to specifiers, end users and contractors, as well as on-site technical support in locations all over the country.

Properties

Pot life	: 60 min @ 35 ⁰ C
Mixed density	: 1.95g/cc (brushable consistency)
Color	: Grey
Application temp.	: Not less than 10 ⁰ C
Adhesion to concrete	: >1.5N/mm ₂
Toxicity	: Non-toxic
Water resistant positive side (DIN1048)	: 5 Bar
Water resistant positive side (ITM/FTM-181)	: 2 Bar
Static crack accommodation	: 1mm

Application

Surface Preparation

All surfaces which are to receive the coating, must be free from oil, laitance, grease, wax, dirt or any other form of foreign matter which could affect adhesion. Typically, concrete surfaces can be cleaned using a high pressure water jet. Spalled surfaces or those containing large blowholes, and other such defects, should be repaired using Silproof EC or a Silkon approved repair mortar. Care must be taken when choosing the repair mortar to ensure that it has all necessary approvals for contact with potable water. If the surface contains small blowholes, typically less than 1 mm wide, the coating can be applied directly onto the substrate without the need for a treatment. Cracks which are less than 0.3 mm in width can be over-coated as long as the crack is not likely to open up to greater than 0.3 mm (this is greater than the maximum permissible cracks widths recommended in BS8007:1987, the British Standard Code of Practice for the design of concrete structures for retaining aqueous liquids). Cracks which are greater than 0.3 mm in width should be chased out to 4 mm in width and approximately 15 mm in depth. This should be filled with Silproof EC (applied using a Silkon 'G' Gun). When the material in the crack has hardened the coating should be applied over the crack



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Silproof EC

Mixing

The liquid polymer (5.0 kg) is poured from the plastic container into a plastic or metal drum having a volume of at least 25 litres. To this, the powder is gradually added (18 kg) whilst mixing with an approved spiral paddle attachment on a slow speed drill. Mixing is continued until a lump free slurry is obtained. This should take a minimum of 3 minutes and a maximum of 5 minutes.

Note: the preferred drill speed is between 280 to 640 rpm

Pre-wetting of the substrate

Thoroughly dampen the substrate surface with water using a brush roller or spray bottle. High porosity substrates will require more dampening than dense substrates. Do not apply the coating when the substrate is wet, but allow the water to soak in until the substrate is just visibly damp prior to proceeding. Any excess water should be removed using a sponge. Any running water should be stopped with a suitable plugging mortar such as Fast Setting Mortar. Contact the local Silkon office for further advice on other suitable water stopping materials. For optimum use of the product, Silproof EC white should be applied as the first coat, with Silproof EC grey as the second coat. This gives a visual indication of coverage. The first coat should be applied at a wet film thickness of 1 mm (approximate coverage per coat is 1.8 kg/m² or 1 litre/ m²). To ensure the correct thickness is achieved measure out an area (for example 200 m²) then calculate how much material will be needed to cover this area. Monitor the coating thickness during application at regular intervals using a wet film gauge. Care must be taken to attempt to fill all imperfections such as blow holes during the application. If not, they can be filled while the coating is still fluid by using a dry sponge. If the coating has dried before these imperfections are found they can be filled using fresh material. All the mixed material should be used within one hour of mixing. Allow the first coat to cure for a minimum of 4 hours at 20°C per 50% RH and longer at lower temperatures or higher humidity's. The exact drying time will depend on surface temperature, relative humidity and air movement. High temperatures and/ or low humidity will reduce the drying time. This can vary from 1 to 16 hours. The first coat should be left to dry until firm and unmakeable to the touch. There is no maximum time between coats, however the surface may need cleaning with water prior to the application of the second coat to remove potential contamination. The second coat should also be applied at a wet film thickness of 1 mm. Pre-dampening of the surface is not necessary prior to applying the second coat. No curing membrane is necessary, however the freshly applied coating should be protected from rain and strong wind or until firm to the touch to prevent damage to the wet coating.

Brush application

The most suitable type of brush is a soft bristled wallpaper paste brush (120 to 220 mm wide). Where larger areas are to be applied it is advisable to use a brush with a handle. Load the brush up well and spread the material to the required thickness.

If the brush begins to drag during application, do not add water to the material, but dampen the surface again. Finish in one direction for a neat appearance. For floor application, a soft bristled broom is recommended. Pour the material on to the substrate and then spread to the required thickness.

Estimating

Supply	
Powder component (grey or white)	: 20 kg bag
Liquid polymer component	: 5.5kg plastic container
Coverage	
Coverage rate at 1mm	: 14m ² per 25.5kg pack

Health and safety

Silproof EC powder is irritating to the eyes, respiratory system and skin. Avoid inhalation of dust and wear suitable respiratory protective equipment. Silproof EC liquid is not classified as dangerous. Silproof EC when mixed becomes highly alkaline. Wear suitable protective clothing, gloves and eye protection. For both components and for the material when mixed avoid contact with eyes or skin rinse immediately with plenty of water and seek medical advice.

Storage

Shelf life is 6 months in unopened packs. The liquid component must not be allowed to freeze.



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Supremix PC 350

Supremix PC 350 is an advanced low viscosity high performance super plasticizer, based on Polycarboxylic technology which is intended for applications where high water reduction and long workability retention are required.

Supremix PC 350 is a unique combination of the latest generation super plasticizer, based on PCE Based technology with long lateral chain. This greatly improves cement dispersion. At the start of the mixing process a steric hindrance dispersion occurs and cement particles start dispersing. This mechanism considerably reduces water demand in flowable concrete.

Usages and Advantage

- Pumped concrete,
- Concrete requiring long workability retention,
- Low viscosity suitable for pumping of different grades of concrete to higher floors
- Improved adhesion to reinforcing and prestressing steel
- Better resistance to carbonation
- Lower permeability
- Better resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

Standard Compliance

Supremix PC 350 complies with IS:9103-1999(2007). It also complies with ASTM C494 Type G depending on the dosage used.

Technical support

Silkon provides a technical advisory service for on-site assistance and advice on mix design, admixture selection, evaluation trials and dispensing equipment.

Properties

Appearance	:	Light yellow colored liquid
pH	:	Minimum 6.0
Volumetric mass @ 20 ⁰ C	:	1.07 kg/litre
Chloride content	:	Nil to IS:456

Dosage

The optimum dosage of Supremix PC350 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 0.5 to 3.0 ltrs/100 kg of cementitious material.

Over dosages

Dosage outside the normal range quoted above can be used to meet particular mix requirements. Over dosage may cause delay in the setting time and segregation. Contact Silkon for advice in these cases.

Packaging

Supremix PC350 is available in 200kg and 250kg drums and bulk tanker.

Storage

SupremixPC 350 has a minimum shelf life of 12 months provided the temperature is kept within the range of 2⁰C to 50⁰ C. Should the temperature of the product fall outside this range then contact local Silkon office for advice.



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Supremix PC350

Health and safety instructions

Supremix PC350 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting. For further information consult the Material Safety Data sheet available for this product.

Fire

Supremix PC350 is water based and non- flammable.

Cleaning and disposal

Spillages of Supremix PC350 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority



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Supremix PC 450

Supremix PC450 is an Advanced Low Viscosity High Performance Super-plasticiser, based on Polycarboxylic technology this is an unique combination of the latest generation superplasticisers, based on a polycarboxylic ether polymer with long lateral chains VMA and Rheology modifier inbuilt, This greatly improves cement dispersion. At the start of the mixing process an electrostatic dispersion occurs but the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flowable concrete. Supremix PC 450 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability.

Uses & Advantages

Supremix PC 450 is a high performance superplasticiser intended for applications where high water reduction and long workability retention are required, and it has been developed for use in:

- Self-compacting concrete,
- Pumped concrete,
- Concrete requiring long workability retention,
- High performance concrete.
- Low viscosity suitable for pumping of different grades of concrete to higher floors
- Higher E modulus
- Improved adhesion to reinforcing and prestressing steel
- Better resistance to carbonation
- Lower permeability
- Better resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

Standard Compliance

Supremix PC450 complies with IS:9103-1999(2007). It also complies with ASTM C494 Type G depending on the dosage used

Technical support

Silkon provides a technical advisory service for on-site assistance and advice on mix design, admixture selection, evaluation trials and dispensing equipment.

Properties

Appearance	:	Light yellow colour liquid
pH	:	Minimum 6.0
Volumetric mass @ 20 ^o C	:	1.08 kg/litre
Chloride content	:	Nil to IS:456

Dosage

The optimum dosage of Supremix PC450 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 0.5 to 3.0 ltrs/100 kg of cementitious material.

Effects of overdosing

Dosage outside the normal range quoted above can be used to meet particular mix requirements. Overdosage may cause delay in the setting time and segregation. Contact Silkon for advice in these cases

Packaging

Supremix PC450 is available in 200kg and 250kg drums and bulk tanker.



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Supremix PC450

Storage

Supremix PC 450 has a minimum shelf life of 12 months provided the temperature is kept within the range of 2⁰C to 50⁰ C. Should the temperature of the product fall outside this range then contact local Silkon office for advice.

Health and safety instructions

Supremix PC450 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting. For further information consult the Material Safety Data sheet available for this product.

Fire

Supremix PC 450 is water based and non- flammable.

Cleaning and Disposal

Spillages of Supremix PC 450 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.



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ADDITIVES INDIA PVT LTD

Supremix PC 550

Supremix PC550 is an Advanced Low Viscosity High Performance Super-plasticiser, based on Polycarboxylic technology this is an unique combination of the latest generation superplasticisers, based on a polycarboxylic ether polymer with long lateral chains VMA and Rheology modifier inbuilt, This greatly improves cement dispersion. At the start of the mixing process an electrostatic dispersion occurs but the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flowable concrete. Supremix PC 550 combines the properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability.

Uses & Advantages

Supremix PC550 is a high performance superplasticiser intended for applications where high water reduction and long workability retention are required, and it has been developed for use in:

- Self-compacting concrete,
- Pumped concrete, and Value added concrete,
- Concrete requiring long workability retention,
- High performance concrete up to M200 Grade concrete
- Low viscosity suitable for pumping of different grades of concrete to higher floors
- Higher E modulus
- Improved adhesion to reinforcing and pre-stressing steel
- Better resistance to carbonation
- Lower permeability
- Better resistance to aggressive atmospheric conditions
- Reduced shrinkage and creep
- Increased durability

Standard Compliance

Supremix PC450 complies with IS:9103-1999(2007). It also complies with ASTM C494 Type G depending on the dosage used

Technical support

Silkon provides a technical advisory service for on-site assistance and advice on mix design, admixture selection, evaluation trials and dispensing equipment.

Properties

Appearance	:	Light yellow colour liquid
pH	:	Minimum 6.0
Volumetric mass @ 20 ^o C	:	1.09 kg/litre
Chloride content	:	Nil to IS:456

Dosage

The optimum dosage of Supremix PC550 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 0.3 to 3.0 ltrs/100 kg of cementitious material.

Effects of overdosing

Dosage outside the normal range quoted above can be used to meet particular mix requirements. Overdosage may cause delay in the setting time and segregation. Contact Silkon for advice in these cases

Packaging

Supremix PC550 is available in 200kg and 250kg drums and bulk tanker.



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Supremix PC550

Storage

Supremix PC550 has a minimum shelf life of 12 months provided the temperature is kept within the range of 2⁰C to 50⁰ C. Should the temperature of the product fall outside this range then contact local Silkon office for advice.

Health and safety instructions

Supremix PC550 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting. For further information consult the Material Safety Data sheet available for this product.

Fire

Supremix PC 550 is water based and non- flammable.

Cleaning and Disposal

Spillages of Supremix PC 550 should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Remnants or vermiculite and transferred to suitable containers. Remnants should be hosed down with large quantities of water. The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.