Superbond AB

Superbond Ab is Acrylic emulsion cement modifier and water based concrete bonding agent. It is recommended primer for all type cementitious repair system for improving and bonding floor toppings, renders and mortars; repair of worn, damaged or spalled concrete; polymer modified floor screeds.

Product usages and advantages:

- Excellent bond strength
- Improved tensile, flexural and compressive strength
- Resistant to water penetration
- Highly recommended for repairs and rehabilitation of structures
- Easy and Economical to use

Specification compliance:

Superbond AB meets BS 6319, Standard Specification for Slant Shear strength of Fresh to Hardened Concrete.

Description

Superbond AB when incorporated into cement mortar mixes, forms polymer modified system with interpenetrating polymer films which exhibits excellent adhesion, improved tensile, flexural and compressive strengths, excellent resistance to water, water vapor and improved chemical resistance.

Technical support

Silkon provides a technical advisory service for on-site assistance and advise on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for Superbond AB and other products.

USES:

Superbond AB can be used for repairing concrete elements like beams, columns and slabs or any other concrete element for old to new concrete bonding hence ensure the monolithic system after repair.

Properties

Specific gravity : 1.03 to 1.04 g/cc

METHOD OF APPLICATION:

When Superbond AB modified mixes are used, it is essential that the following procedures are closely followed.

Surface Preparation:

Remove all laitance, oil, grease, mould oil, curing compound, etc using a wire brush or for large floor areas, a scrubbing machine. Ensure that reinforcing steel is clean and free from grease or oil, remove scale and rust. When repairing spelled or damaged concrete, ensure that the sound surface is exposed.

Priming:

Ensure that absorbent surfaces such as concrete, brick, stone etc., are saturated surface dry. Prepare bonding slurry consisting of Mix Ratio. Superbond AB, Water & Cement:1: 1.5 : 1.5 ,mixed to a lump free consistency. Using a stiff brush, apply the bonding slurry well onto the damp surface ensuring that no pinholes are visible. Do not apply bonding slurry at thickness in excess of 2mm. If a second coat is necessary, it must be applied after allowing the first coat to “flash-off”. Best results are achieved, if mortar is applied within 5 minutes of application of bond coat. In Case Of Direct Application of Superbond AB the bond coat becomes tacky in about 2 minutes and best results are achieved if the mortar is applied within the next 5-10 min

Mechanical properties

Typical improvements in mechanical properties of a 3 : 1 cement mortar /sand using Superbond AR.

Mechanical properties	Curing conditions	Control	Superbond AB
Adhesion to concrete Slant shear strength N/mm_2 (BS 6319)	Dry	5.0	20.0

Typical Mix designs to repair mortars :

OPC	50 kg
Zone 2 sand	150 kg
Superbond AB	8 - 9 liters
Water	Add sufficient water to give required consistency

Note : Trials are recommended to optimise mix designs. 1:4 cement sand mortars can also be used with same dosage of Superbond AB.

SILKON ADDITIVES (INDIA) PVT LTD

Plot no.622P, Sector-38, District- Gurugram-122001 (Haryana) Contact No.124-2200622, 18001236299 Email: info@silkon.com

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Curing:
It is preferable to cure Superbond AB modified mortars as soon as they are laid, to prevent rapid evaporation of water essential for hydration. This can be achieved by using polythene, damp hessian, or a suitable concrete curing membrane.

COMPATABILITY:
Superbond AB is compatible with all types of OPC, sulphate resisting and high alumina cements.

Cautions:
As a bonding agent, Superbond AB may exhibit less overlay time at higher temperature. In such cases as overlay mortar shall not be applied when Superbond AB is totally dry. Superbond AB when used as bonding agent cannot act as a barrier coat against ingress of chloride ions from the substrate. Protect uncured mortar from frost and rain. Do not retemper mortar after initial set. Minimum application temperature for Superbond AB is 10 Degree Centigrade but the mortar should not be applied if the temperature is expected to fall. For permanently immersed conditions consult Local Silkon technical team.

Tools and Equipment Cleaning:
Immediately after use, wash all tools with clean water.

PACKAGING:
1kg, 5kg, 20kg, and 200Kg.

Coverage:
Approximately 6 – 8 Sqm/ litre depending on substrate

SHELF LIFE:
12 months at 30^0C in sealed containers. Avoid prolonged storage in excessive heat and Frost Conditions.

HEALTH & SAFETY:

Avoid contact with skin for prolonged period. Any contact with eye, wash immediately with plenty of water and seek medical attention. Superbond AB is slightly alkaline. Skin contact should be avoided. Gloves and protective clothing should be worn during application.

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