



SILKON
ADDITIVES (INDIA) PVT LTD

Silkon HDPE

Pre-applied HDPE pressure sensitive adhesive Waterproofing membrane which bonds integrally to poured concrete, remaining in place if settlement of substrate occurs.

Product usages and advantages

- Basement waterproofing protection to grades 1,2 and 3 as defined in BS8102:2009
- To provide a vapour and waterproof membrane in building and civil engineering structures
- Forms a integral bond to poured concrete by pressure sensitive adhesive and remaining in place if settlement of the substrate occurs
- Simple application - no primers or protection material required
- Inert product - no risk of a reaction with ponded waste prior to concrete being poured
- Facilitates flexible construction programming
- Full range of Silkon hydrophilic and PVC waterstops available to provide complete solution to waterproofing of the structure.

Standards compliance

Silkon Membrane HDPE Complies BS 8102:2009 Specification

Description

Silkon Membrane HDPE is a membrane HDPE film pressure sensitive adhesive which allows poured concrete to bond fully with the membrane. Silkon Membrane HDPE provides water, water vapour protection to water excluding structures and protects concrete from aggressive ground salts, chemicals and hydrocarbons.

Silkon Membrane HDPE is supplied with a self adhesive selvedge along one side of the roll to provide sealed laps and a comprehensive range of auxiliary products to simplify the application process.

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	Test Method	Result
Thickness	ASTM D412	1.2mm
Elongation	ASTM E154	>500%
Puncher Resistant	ASTM E154	>1100 N%
Peel Adhesion to concrete	ASTM D903	1500 N/m
Resistant to Hydrostatic Head	ASTM D751-06(2011)	>75 mtr
Low Temperature Flexibility	-	< - 25 ^o C, No Break
Linear Dimensional Change	ASTM D1204	0.1%
Lap Joint Strength	ASTM D1876	14.0 N/mm

Application Methodology

Surface Preparation

Careful surface preparation is essential for an ideal finish and durability. The surface needs to be clean, dry and sound, The Concrete surface should be float finished and free from cavities and projecting ribs. All surfaces shall be dry and free from frost, surface laitance and contamination.

Application

Horizontal Areas :

Silkon Membrane HDPE is unrolled and placed in position. Each roll is overlapped by next layer by 75mm. Use Silkon Membrane HDPE sealed tape, where there is a cut joint by hot air shovelling to 100 mm width. Self Adhesive sanded tape may be used where necessary for corners and upstands. All overlaps and joints should be firmly rolled to ensure complete adhesion between layers.

Vertical Areas

Without working space : Silkon Membrane HDPE to be used for all vertical section, where the retaining wall is abutting the shored or gunnited or piled surfaces. The membrane to be dropped down on to the vertical surfaces and anchored mechanically.



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With working space : Silkon Membrane HDPE-S, self adhesive HDPE Membrane is applied on to the vertical surfaces. The membrane is applied by removing the release film and pressing firmly on to the surfaces by roller.

General Instruction

When laying adjacent full rolls there should be a stagger of half a roll length to avoid a build up of end joints in one area. Self Adhesive sanded tape may be used where necessary for corners and upstands.

Removal of formwork

Where the membrane has been applied to removable shuttering it is recommended that a minimum concrete compressive strength of 10 N/mm² is reached before the formwork is stripped.

Penetrations

Penetrations e.g., pipe entries through Silkon Membrane HDPE, require special attention to detail. Refer to Silkon for more information on details.

Backfilling

Backfilling material must be free from sharp objects and debris that could damage the Silkon Membrane HDPE. It should not contain house bricks, blocks or boulders larger than 50 mm.

Contaminated ground

Silkon Membrane HDPE is suitable for use in many contaminated ground applications eg hydrocarbons, salts etc. Consult local Silkon office for specific advice.

Ancillary products

Silkon Membrane HDPE -Sealed Tape Double-side Adhesive Flashing tape has two layers of adhesive which bond respectively to the HDPE surface. The specially developed Silkon Membrane HDPE Sealed Tape work together to form a continuous and integral seal to the structure.

Silkon Membrane HDPE Sealed Tape is an 100mm wide tape used in detail areas including end laps and various tie-ins. It is also used to patch damaged areas in the Silkon Membrane HDPE.

Estimation

Roll Size : 1.0X20 Mtr

Seal Tape Size : 100mmX10Mtr

Storage

Store in original unopened packaging, in cool dry conditions, away from sunlight, in a flat position.