UltraShield CS 15

Two Component Acrylic Modified Cementitious Waterproofing Coating

Description

UltraShield CS 15 is a two-component waterproofing and protective coating for concrete and metal structures. The coating is designed to provide a tough barrier against the penetration of water and moisture. It also functions as an anti-carbonation coating. The coating upon full cure forms a tough, resilient yet flexible coating.

UltraShield CS 15 is based on a blend of high performance cementitious fillers and acrylic co-polymers. A completely cured coating will exhibit the following qualities:

- High resistance to hydro static water pressure
- Tough yet highly flexible. The thermal co-efficient of expansion is similar to concrete
- Excellent durability. Is resistant to UV and weathering effects and does not lose its properties over time
- Bonds very well on concrete as well on metal substrates
- Suitable for pedestrian traffic
- High Tensile strength and elongation
- Non-toxic. Can be used in potable water applications
- Anti-carbonation. Resistant to the ingress of carbon dioxide and chloride ion
- Can be applied on concrete surfaces immediately after it attains its final cure
- Allows the substrate to breathe.

Recommended Applications

UltraShield CS 15 is used as Waterproofing of the following structures:

- Roofs, terraces, balconies and domes
- Corrugated metal sheets
- Water tanks and reservoirs
- Lift pits and swimming pools
- Tunnels, underpasses & manholes
- Spillways, surge shafts, precast slabs and joints
- Wets areas: Toilets, Kitchens, public showers

UltraShield CS 15 is also used as an anti-carbonation protective coating to exposed concrete structures.

Supply

Part A: 15 kg (Powder)

Part B: 5 ltr (Liquid)

Application

Surface Preparation: The substrate on which the coating will be applied has to be cleaned thoroughly of all contaminants which may affect the adhesion. All major repair works needs to be carried out with a suitable repair material prior to the application.

Priming: Pre-saturate the substrate with water prior to the application of the coating. However, ensure that all standing water is removed. Highly porous and difficult substrates should be primed with a suitable Acrylic based primer to improve the adhesion of the coating with the substrate.

Mixing: **UltraShield CS 15** is supplied in two pre-measured parts which just requires on site mixing. Use a suitable container for the mixing. Add the powder component to the liquid component and mix thoroughly with a slow speed mixing drill (300-400rpm) fitted with a suitable paddle mixer until a lump free creamy consistency is obtained.

Note: Do not add additional water to loosen the material at any stage.

Application: The mixed coating should be applied in a minimum of 2 coats for areas which are subjected to foot traffic and hydrostatic pressure. Apply each coat at a coverage rate of 1.8kg/m^2 to attain a Dry Film Thickness of 1mm. A total of 2mm thickness will be achieved in 2 coats.

For best results, apply the coating with a stiff brush.

Corners and joints shall be treated with a fibre mesh to provide added strength to the applied coating. This mesh shall be applied immediately on the 1st coat whilst it is still wet.

The application of the second coat shall be carried out after the first coat dries off.

For general waterproofing and protection against carbonation and alkali attacks, the coating can be applied in 1mm thickness.

Curing: The coating shall be cured immediately after it dries by wet hessian cloth or mist spraying for a minimum period of 72 hours. The coating will achieve its full mechanical properties within 7 days at 25°C and 50% RH.

Cleaning: Clean all tools immediately with water after use. Hardened materials can be removed mechanically only.

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UltraShield CS 15

Technical Specification

PROPERTIES	VALUES	TEST STANDARDS
Color	Grey/Light Beige	-
Mixed density	1.8 g/cc	ASTM D 1475
Pot life @25°C	45 minutes	-
Tensile strength	≥1 N/mm^2	ASTM D 412
Elongation	>50%	ASTM D 412
Water Potability	Non-toxic	BS 6920
Hydrostatic head pressure	Nil @5 bar	BS 12390
Crack bridging ability	>0.5mm	ASTM C 836
Abrasion resistance	<75gm	ASTM D 4060
Adhesion to concrete	>0.5 N/mm^2	ASTM D 4541
Initial cure @25°C	6-8 hours	-
Full cure	7 days	-
Application temperature	5°C to 45°C	-
Service temperature	-5°C to 70°C	-

Storage & Shelf Life

The material in unopened conditioned shall be stored on pallets in a cool and shaded area and should be protected from extreme climatic conditions. The shelf life is 12 months when stored as per recommendation and in un-opened conditions.

Health & Safety

As with all construction chemical products caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting but call for medical assistance immediately.

For professional use only. Keep out of reach of children.

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