



HYDROSEAL FX

HIGH PERFORMANCE WATERPROOF COATING

DESCRIPTION

HYDROSEAL FX is a two component cementitious hybrid-polymer coating, which exhibits excellent waterproofing and protective properties to both concrete and steel substrates. HYDROSEAL FX cures to form a highly durable but flexible alkaline coating for protection from water, chlorides and ground gases. HYDROSEAL FX offers a degree of chemical resistance, making it particularly suitable for resistance to sulphate contamination.

USES

HYDROSEAL FX is suitable for the structural waterproofing and protection of concrete, masonry and steel substrates. The applied coating will effectively resist water pressure up to 10 bar in both negative and positive orientation. This makes it particularly suitable for waterproofing of substructures, basements, culverts, tunnels, swimming pools, water reservoirs and other water retaining structures. It provides excellent protection against chlorides on exposed structures. It is also suitable for use as a coating to re-introduce effective cover to enhance the lifespan of the structure to which it is applied.

COMPLIANCE

HYDROSEAL FX has been certified by the BBA.

HYDROSEAL FX is CE marked in accordance with BS EN 1504 Part 2. Suitable for surface protection principles 1.3, 2.2, 8.2 as defined with BS EN 1504 - 2.

Listed in the "List of Approved Products and Processes for use in Public Water Supply" published by the DWI. (<http://www.dwi.gov.uk/drinking-water-products/approvedproducts/index.htm>).

ADVANTAGES

- Hybrid polymer technology provides enhanced bond to substrate.
- Excellent adhesion to concrete, masonry and steel substrates.
- Easily applied by trowel, brush or spray equipment.
- Extremely low permeability to water in both positive and negative pressure orientations.
- Excellent carbon dioxide gas diffusion resistance.
- Excellent resistance to chloride ions to prevent corrosion of embedded reinforcement steel.
- 2mm provides equivalent of 100mm of concrete cover to steel reinforcement caps.

Property	Value	Test Standard
Compressive Strength	39.5MPa @ 28 day	BS EN 12190
Adhesive Bond	2.1 MPa	BS EN 1542
Permeability to Water Vapour	$S_D = 0.91m$	BS EN ISO7783-2
Reaction to Fire	Euroclass A2-S1	BS EN 13501-1
Thermal Capability	>2.0 MPa	BS EN 13687-1
Capillary Absorption	Class III < 0.1kg/(m ² h0.5)	BS EN 1062-3
Permeability to CO ²	2mm equivalent to 100mm of concrete	BS EN 1062-6
Liquid Water Transmission Rate (Capillary absorption and permeability to liquid water)	$W = 0.018kg \cdot m^{-2} \cdot h^{-0.5}$	BS EN 1062-3
Colours	White and Grey	
Pot life	30 minutes @ 20°C	
Density	1942 Kg/m ³	
Water Permeability Coefficient	$5.7 \times 10^{-16} M/sec$	Vinci Test

PROCEDURE

Surface Preparation: Substrates to which the HYDROSEAL FX is to be applied should be thoroughly cleaned and free from all loose material. Surface laitance should be removed by the use of wet grit blasting or high pressure water jet. This will ensure that an adequate key is provided for the applied coating. Steel substrates should be mechanically prepared using a grinder or grit blasting equipment to ensure it is cleaned back to a bright metal finish. The substrate should be consistent with no defects. Any repairs should be carried out using a suitable Premcrete repair product. The concrete sub-base should have a minimum compressive strength of 25 MPa and have a curing time of at least 28 days to ensure the product bridges any potential cracks that could occur in the curing process. The prepared substrate should be free from any live

water ingress and should be saturated with clean water taking special care to remove any standing water before application of the coating begins.

Substrate Priming: Application of HYDROSEAL FX to a vertical surface does not typically require the use of a primer. Highly porous substrates may require sealing with EPOPRIME AC, however when HYDROSEAL FX is to be applied to a floor or deck, then the substrate should be primed with EPOPRIME AC to prevent any out-gassing of the substrate occurring.

Mixing: The liquid component should be dispensed into a suitable mixing vessel that has the capacity to contain 17 ltrs of mixed product. The powder component should be added to the mixing vessel slowly and mixed using a forced action mixing paddle or pan



mixer for a minimum of 5 minutes until a uniform consistency is achieved. Special care should be taken to ensure that packs of HYDROSEAL FX are not split or part mixed.

Application: HYDROSEAL FX is applied to a pre-wetted substrate using a suitable brush, trowel or wet spray equipment. The coating should be applied at 1mm thickness per coat taking care to ensure that the fresh coating does not pond but is applied uniformly to the substrate. Vertical applications will require 2 x 1mm thick applications, the first coat should be firm but not completely set before applying the second coat. This will typically be one to two hours depending on the temperature. Horizontal applications can be applied as a single 2mm thick coating. A pin leveller should be used to apply the HYDROSEAL FX to large horizontal areas to ensure a consistent coating is achieved. Once levelled the coating should immediately be de-aerated using a spiked roller to release any trapped air bubbles and prevent any pin holes occurring.

Equipment Cleaning: Tools should be cleaned using water before the coating has begun to set.

Curing: Care should be taken to ensure that the freshly applied coating is protected from direct sunlight and wind to ensure that premature drying, which results in surface cracking, does not occur. CUREAID AC should be applied immediately once application has completed. Alternatively, a quartz aggregate can be broadcast on to the freshly applied coating to provide the required protection which will also result in a slip resistant finish being achieved.

PACKAGING & COVERAGE

Pack Size: 30Kg

Yield: 15.3ltrs per 30Kg pack.

Coverage: 1.8kg/mm/M2. A 30kg pack will cover approximately 7.6 m² at 2mm thick.

STORAGE & SHELF LIFE

Should be stored in cleaned dry conditions at temperatures of 6oC and above. HYDROSEAL FX has a shelf life of 12 months if stored correctly.

LIMITATIONS

- HYDROSEAL FX should not be applied to a substrate where live water ingress is occurring.
- HYDROSEAL FX is not typically used as a decorative finish.
- If HYDROSEAL FX is to be used in a tidal zone, then a minimum of 3hr should be allowed before emersion. The coating should be protected from any aggressive water action.
- HYDROSEAL FX should not be applied at temperatures of 5°C or less

HEALTH & SAFETY

See separate material safety datasheet.

