

# PolyProof HF



## 2K Cementitious / acrylic modified Waterproofing membrane

Ver. A1218

### DESCRIPTION:

**POLYPROOF HF** is a two components high flexible acrylic modified cementitious coating for protecting concrete structures against water, vapor, ingress of chloride ions, attacks of acidic gases and alkalis. It cures to form a tough flexible coating having excellent waterproofing properties. **POLYPROOF HF** is a blend of cement, selected fillers, polymers and special graded additives. The liquid contains modified acrylic binders and additives.

### CHARACTERISTICS:

Good flexibility. Thermal co-efficient of expansion similar to that of concrete.

- Good adhesion to both, porous and non-porous surfaces.
- Good mechanical properties.
- Excellent durability to long term weathering effect and UV
- Non-toxic, therefore suitable for use in potable water applications.
- Resistant to carbon dioxide and chloride ion diffusion.

### FIELD OF APPLICATION:

Used as a waterproofing and protective coating for the following structures:

- Pile heads.
- Internal lining for potable water reservoirs and other water retaining structures.
- Protection of exposed concrete structures like bridge decks against carbonation and chloride attack.
- Inverted roofs, lift and inspection pits, swimming pools, spillways.
- Backing on marbles and granites to prevent the ingress of moisture.
- General construction waterproofing.

### APPLICATION INSTRUCTIONS:

The application temperature should be between 5°C to 45 °C. Application procedures may vary slightly depending upon site conditions. The Product Guide V7-Structural Waterproofing general recommended guidelines for the application of the coating system is as follows:

### Surface Preparation

The surface must be structurally sound and free of oil, grease, dust and other contaminants which will affect the bonding. Any structural cracks and potholes shall be repaired with a suitable repair mortar from the POLYREP\* range of repair mortars. The surface to be treated should be pre-saturated with water prior to application. However, any standing water shall be removed prior to application.

### Mixing

POLYPROOF HF is supplied in two pre-measured parts which just requires on site mixing. Do not mix more material than that can be used within the pot life. Part mixing can be carried out by mixing 4 parts of powder with 1 part of liquid (by weight). Pour the liquid into a suitable container and slowly add the powder to the liquid. Mix the contents using a slow speed drill till a homogenous, lump free and creamy consistency is achieved. **DO NOT ADD WATER TO DILUTE THE MATERIAL.**

### Application

It is recommended to apply POLYPROOF HF in two coats to provide a minimum thickness of 2mm for heavily trafficked areas and water retaining structures. Each coat shall be applied @1.8 kg/m<sup>2</sup> which will give a dry film thickness of 1mm. The coating can be applied with a stiff brush or by an airless spray of nozzle size of 3-4mm and a pressure of 6-7 bar. After the application of the first coat and whilst the coating is still wet, embed a glass fibred mesh at all corners and other joints for added reinforcement. The second coat shall be applied after the first coat dries off completely (6-8 hours@25C,50% RH). For general waterproofing and protection against carbonation and alkali attacks, the coating can be applied in 1mm thickness.

Disclaimer: we attempt continually to ensure that all information, advices, methods and recommendations noted here in this technical data sheet are accurate. However, because we have no control where and how this product may use or applied, we cannot accept any liability arise from the use of this product.

# PolyProof HF



## 2K Cementitious / acrylic modified Waterproofing membrane

Ver. A1218

### PROTECTIONS:

Adequate protection needs to be provided for the coating in the following conditions:

- Areas subjected to mechanical abrasion.
- Flowing water areas

### 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 25C and 50%RH.

### CLEANING:

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

### COVERAGE:

1.8kg per m<sup>2</sup> per coat for 1mm Dry Film Thickness.

### STORAGE & SHELF LIFE:

Store under cover, out of direct sunlight and protect from extreme temperatures. It is recommended to keep the powder bags on pallets and not stacked on the floor. The shelf life is up to 12 months when stored as per recommendations and in unopened conditions. Failure to comply with the recommendations will result in premature deterioration of the product and reduce its shelf life

### 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 the 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.



### TECHNICAL SPECIFICATIONS:

specification	VALUES	TEST STANDARDS
Color	Dark Grey/ Light Grey	
Mixed density [g/cc]	18±0.02	ASTM – D 1475
Pot life [min]	45	ASTM – D 1475
Tensile strength, <sup>#</sup> [N/mm <sup>2</sup> ]	> 8	ASTM – D 412
Elongation, <sup>#</sup> [%]	> 5	ASTM – D 412
Adhesion strength, [N/mm <sup>2</sup> ]	> 0.5	ASTM – D 4541
Crack bridging [mm]	> 0.5	ASTM – C 836
Hydrostatic Pressure @ 3 Bar (50min)	No leakage	BS EN 12390 (Part 8)
Hydrostatic negative Pressure @ 3 Bar (30min)	No leakage	BS EN 12390 (Part 8)
Toxicity	Non Toxic	BS 6920
Abrasion resistance, <sup>#</sup> [mg]	< 75	ASTM – D 4060
VOC,[g/l]	< 50	ASTM – D 3960/ D 2369
Drying Time [hrs]	6-8	-
Full cure [days]	7	-
Application temp[°C]	5 to 45	-
Service temp [°C]	-5 to 70	-

### SUPPLY:

**POLYPROOF HF**

- **20 kg Kit**  
(Part A – 15 kg Bag)  
(Part B – 5 kg Jerkin)

Disclaimer: we attempt continually to ensure that all information, advices, methods and recommendations noted here in this technical data sheet are accurate. However, because we have no control where and how this product may use or applied, we cannot accept any liability arise from the use of this product.

**Polygon** Polygon Speciality Construction Chemicals

[www.polygon.sa](http://www.polygon.sa)

Tel: +966 112636205 Fax: +96611263105