



# Protecto W-40

Acrylic Cement Mortar Additive

## PRODUCT DATASHEET

### ► Description:

Protecto W-40 is an Acrylic Polymer Additive for modifying cement concrete/mortar/plaster/grouts. Protecto W-40 in conjunction with cement provides properties to combat the shortcomings of cement, particularly its poor adhesion properties, low impact strength, low flexural strength and thin section fragility. The addition of Protecto W-40 improves mechanical properties specially flexure and tension. Due to low permeability of polymer-modified systems, remarkable improvement in prevention of carbonation, chloride ion penetration is observed. Also chemical resistance improves significantly. The addition of Protecto W-40 imparts resilience to the cement matrix, thereby improving impact resistance. Also the modified cement matrix cures in air, eliminating the necessity of wet curing. It is necessary to mix Protecto W-40 in water first prior to addition in cement mortar/concrete.

### ► Uses:

- Excellent Repair Mortar, for strengthening dilapidated RCC structures
- Waterproofing of bathrooms and slabs.
- Excellent lining material on concrete surface to protect it against carbonation, chloride ion penetration, etc.
- As a bond coat
- As an additive to cement grout

### ► Applications:

Mix Protecto W-40 in water first prior to addition in cement mortar/concrete.

APPLICATION	PROPORTION	YIELD
Waterproofing, Protective Coating, Bond Coat, Passivator Coat	1 kg Cement: 1 Litre Protecto W-40	3 to 4 sq. metre per litre of Protecto W-40
Repair Mortar	15 kg Cement: 45 kg of Quartz Sand: 3 kg of Protecto W-40	0.03 Cu. metre
Injection	2 parts cement: 1 part Protecto W-40	1.5 LTS

Protecto W-40 can be used in various applications. Following guidelines are for structural rehabilitation.

1. Reach the sound concrete and clean reinforcements with wire brush to remove loose scales and rust remover to remove rust particles
2. Clean with jet of water to remove loose particles, dust, etc.
3. Apply passivator coat: 1 part cement: 1 part Protecto W-40 coat on rusted reinforcement
4. Apply bond coat: 1 part cement: 1 part Protecto W-40 on entire surface which is to receive subsequent polymer modified mortar
5. Prepare polymer modified mortar: 50 kgs. Cement, 150 kgs. quartz sand, 10 kg Protecto W-40, 5-7 liters water. Apply this on tacky bond coat at approximate thickness per coat of 10 mm.
6. Finish surface as desired, using sponge etc.

#### **CURING:**

Protecto W-40 must be applied with temperature between 5°C to 40°C. During the first 12 hours of curing it must be protected from abrasion, rain and other adverse conditions. No traffic should be allowed on a treated surface within 48 hours after application. After application of final coat, initial air drying shall be done for 2-6 hours. During this period no water is to be used for curing. After maximum period of 6 hours of the final application, moist curing shall be done for the next 24 hours by way of spraying water on the finished surface. Following moist curing, the finished surface shall be allowed to air dry for 3 days before submersion in water, if required for use.

#### **► Properties:**

Form	Liquid
Colour	Milky White
Specific gravity	1.01
Solid content	42% + 1
PH	9.0
Solubility	Mixes with water
Application Temperature	Above 5°C
Chemical Nature	Anionic
Toxicity	Non Toxic
Particle size	0.17 micron

#### **► Performance Data:**

Compressive Strength			Tensile Strength			Flexural Strength	
3 days	225 kgs/cm	22 N/mm	3 days	30 kgs/cm	3 N/mm	28 days	92 kgs/cm <sup>2</sup> (9 N/mm)
7 days	290 kgs/cm	28 N/mm	7 days	44 kgs/cm	4.3 N/mm		
28 days	350 kgs/cm	34 N/mm	14 days	82 kgs/cm	8 N/mm		

Protecto W-40 formulations are subject to strict quality control, innovations and improvements to comply with our high standards. The above information is given on the basis of our best knowledge and information and is for your guidance only. Specifications, however, are subject to change and no guarantee is given or implied. All Rights Reserved.



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