

# PolyCrete Repair Mortar

Polymer Modified Single Component Concrete Repair Mortar

## PRODUCT GROUP : CONCRETE REPAIR SYSTEM

**POLYCRETE**



## ADVANTAGES

- User Friendly
- Shrinkage compensated
- High ultimate compressive strength
- Excellent bond strength to concrete
- Good workability and water retentivity
- Stable on walls and overhead
- Ideal application and hardening times
- Has a low permeability that gives optimum protection to steel reinforcement from chlorides

## DESCRIPTION

**PolyCrete Repair Mortar** is a Polymer modified single-component cement-based hydraulic repair mortar specially formulated for walls and overhead patching of spalled concrete. **PolyCrete Repair Mortar** is a blend of Portland cement, graded aggregates, polymer and additives that produce extremely durable finishes that will not desiccate. It has similar thermal properties to concrete and thus, suitable for application thickness of 6 to 50mm especially for interior and exterior large repairs. It is also designed to enhance initial bonding, flexural as well as tensile strengths. **PolyCrete Repair Mortar** is suitable for both hand applications by trowel or float and by wet-spray techniques.

## AREAS OF APPLICATIONS

- Reinstatement of spalled concrete
- For structural building elements
- Honeycombs repairing
- General concrete repair

## MIXING

Place 4.5 litres of clean water into the clean container. Add a bag of 25kg **PolyCrete Repair Mortar** slowly into the container and mix thoroughly to ensure an average mixing time of 3 to 5 minutes by using an electrical power mixer until the homogeneous paste is achieved. Then lightly stir **PolyCrete Repair Mortar** for several seconds to release trapped air before placing it immediately. Re-mix the material before re-use if the material is left undisturbed for more than 30 minutes. Forced action mixers are recommended. Mixing by hand is not permitted. Use full pack-sizes only.

## APPLICATION

The **PolyCrete Repair Mortar** is suitable to be applied while the bond coat is still tacky. It can either be applied by hand with floats or trowels, or by wet-spray techniques. **PolyCrete Repair Mortar** should not be applied at temperatures below +5°C (air and substrate) or above 40°C. Start applying **PolyCrete Repair Mortar** from the recessed edge to the recommended thickness and thicker layers should be applied in a few operations. Allowed it to cured partially before final troweling to smooth finish.

## CURING

Care must be taken to ensure **PolyCrete Repair Mortar** is suitably protected to prevent rapid loss of water, especially from the effects of direct sun and wind. As with all cementitious materials rain or similar effect can cause slight surface blemishes. Before application of further coatings, loose particles must be removed.

## COVERAGE

Coverage depends on texture and porosity of the substrate. To determine this exactly, a trial area should be laid and coverage noted.

## PACKING AND STORAGE

- Packing : 25 kg / bag
- Shelf life : 6 months
- Storage : Keep in cool dry condition

## TECHNICAL & PHYSICAL DATA

(All values given related to +25°C and 60% relative humidity)  
Fresh Mortar specific gravity : 2.03Kg / dm<sup>3</sup>

Strength Data N/mm <sup>2</sup>	3 days	7 days	28 days
Compressive	33.0	46.0	53.0
Tensile	-	3.4	3.5
Chloride Permeability	ASTM C1202 < 1000 coulombs		
Linear Shrinkage	Less than 0.1%		
Water Penetration	(Din 1048) < 5mm		
Yield	25kg <b>PolyCrete Repair Mortar</b> when mixed with 4.5 litres of water yields approximately 14.5 litres of wet mortar		
Pot life (at + 20°C)	45 Minutes		
(at + 20°C)	30 Minutes		
Layer thickness	Minimum 6mm thickness/coat/application Maximum 25mm thickness/coat/application Total thickness 50mm Overhead thickness 10 - 15mm		
Minimum application condition	> +5°C substrate and ambient temperature		
Disposal	In the interest of the environment, please empty packs completely		

## SURFACE PREPARATION

All the surfaces must be clean, free from grease, oil, laitance, and remove all the dirt and contaminants, which might affect adhesion. All absorbent surfaces shall be thoroughly saturated but must ensure free of surface water before mortar work commences. A minimum substrate pull-off strength  $\geq 1.5\text{N/mm}^2$  is required prior to the application of **PolyCrete Repair Mortar**. The substrate must have sufficient roughness and preferably sound aggregates are visible. All exposed reinforcement bars must be cleaned and protected with anti-corrosion primer in order to allow **PolyCrete Repair Mortar** to achieve optimum performance. It is also recommended to provide 5mm recessed at the edge of the repair areas to prevent feather edging. <sup>TM</sup>Your Preferred Choice of Cement-Based Products The **PolyCrete Repair Mortar** is ready to be applied while the bond coat is still tacky.