

MULTIPLAST 1038

Modified Cementitious Fibred Polymer Mortar and Waterproofer for Concrete Repairs and Structural Renovations

Description:

MULTIPLAST 1038 ensures that repairs to new and old structures are waterproof and further protects the concrete from deterioration by preventing penetration of chloride ions, sulphates, etc. Being cement based, the MULTIPLAST 1038 repair system protects embedded steel by creating a passive (alkaline) environment as well as ensuring thermal compatibility with the base concrete.

Typical Applications

- * Repair of concrete pipes/ precast concrete
- * Repair of damaged structural concrete Used as a water-tight plaster/ caulking mortar
- * Beams/columns
- * Food processing and bottling plants
- * Offshore structures and sewage works
- * Marine environments exposed to constant contact with sea water
- * Repairs and renovations to squash court walls
- * Repairs to honeycombing
- * Repairs to aerated concretes and mortars
- * Wherever a Highly durable repair topping or render is required to ensure maximum resistance to salt penetration, sulphates, etc.

Advantages

- * Factorycontrolled
- * No site blending required
- * Can be plastered to a feather edge or applied for mass mortar renovations
- * Thermal movement is similar to that of base concrete
- * Extremely versatile - can be used for repairs in both vertical and horizontal applications
- * Highly resistant to abrasion and mechanical impact
- * Initial surface absorption 90% less than that of normal concrete
- * Excellent bond to base concrete or asphalt
- * Vapourpermeable

Typical Properties

Compressive strength

28 days:	25-35 Mpa
Tensile strength:	3.4 Mpa
Flexural strength:	4.0 Mpa
Density:	+2215kg tm ³
Water Absorption:	<0.5%
Drying Shrinkage:	0.02%

Colour: Grey/brown
 Pot Life: 40 - 60 minutes depending on temperatures
 Storage: 1 year when stored under cover

Chemical Resistance

Improves resistance to attack from raw sewage, mild acids and alkalis, dairy products, sugar and petroleum spirits.

Directions for Use

Concrete Repair: It is generally accepted that concrete is best repaired with concrete or cement mortar (only when there are other over-riding factors are epoxy resin based materials substituted). To meet these requirements for a Cementitious repair method use MULTIPLAST 1038 in conjunction with our MULTIPOXY 1305 Wet to dry Epoxy Adhesive.

Surface Preparation: Where necessary cut back to expose sound concrete and reinforcing bars. Mechanically clean reinforcing steel to remove corrosion. Wash reinforcing steel with clean water (to remove soluble salt contamination) and allow to dry. Use hot water and trisodium phosphate to remove grease and oil. Prime reinforcing with zinc rich primer and allow to dry for 3-4 hours.

Priming: Prime all clean and prepared surfaces with MULTIPOXY 1305 Wet to Dry Epoxy Adhesive. If inserting new reinforcing bars, coat same with MULTIPOXY 1305 Wet to Dry Epoxy Adhesive prior to proceeding with the repair.

Repair: Whilst primer is still wet - carefully apply and compact MULTIPLAST 1038 mortar. MULTIPLAST 1038 mortar can be applied from 5mm to 40mm dependent on repair size geometry. On larger flat areas, layers should not exceed 10mm in thickness, though several layers can be applied in quick succession, each layer being allowed to obtain initial set before the next is applied (usually between 20-40 minutes dependent on ambient temperature conditions). Finish off the final surface. Alternatively scratch the first coat after application, allow to dry overnight and then apply second layer. Cure with water or wet hessian.

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Other Repairs: Squash court walls, new or renovated:

Remove existing plaster to brick or concrete face and scarify where necessary to obtain a rough and sound surface. Wash down with water. Pre-saturate prepared surface and apply bonding slurry of equal parts cement, water and MULTIBOND 1070 SBR to surface. Immediately apply MULTIPLAST 1038 to the required thickness (15mm to 25 mm) then strike off to desired profile and wood float. As soon as the MULTIPLAST 1038 has firmed, steel trowel to final finish. Allow a maximum working time of 25 minutes when applying the product to the bonding slurry. Cure with MULTICURE 200 Curing Compound using brush or roller. Where crack bridging is required, use MULTIPLEX 1203 Acrylic System.

Mixing: Utilizing a suitable mixer, simply add the water to the powder and mix to desired consistency. Hand mixing is permissible for one bag mixing. Use 3 to 5 litres of water per 25kg bag.

Yield: 1 x 25kg bag yields \pm 12 litres.

Watchpoints

- * Do not mix more mortar than can be used within 20 minutes
- * Do not provide less than 25mm absolute minimum cover of repair mortar over reinforcement
- * Do no re-temper or add water once the material has started to set
- * For areas where the repairs are larger than 400mm thick, steel ties with thin mesh should be inserted to support its own weight.

Curing

Moisture cure for 24 hours and then apply MULTICURE curing compound.

Packaging

Supplied in 25kg moisture resistant bags

Quality Assurance

MCC LIMPOPO production and testing programmes comply with all local and international standards.

Updates

This data sheet supersedes all previous issues prior to this date: 31/05/97.