PENTENS T-801

Polymer Patching Repair Mortar

Product Data Sheet

Description

PENTENS T-801 is a one component, thixotropic, polymer-modified, cementitious mortar which contains silica fume. Cured product produces waterproof and high strength mortar that enhances polymeric properties. PENTENS T-801 exhibits high bonding strength with greatly reduced water and carbon dioxide permeability and improved resistance against oil and chemicals.

Uses

- Fast repairs to horizontal and vertical concrete or mortar surfaces on both above and below ground level.
- Filling/ repair mortar for voids, honeycombed areas, etc.
- Repair of spalled concrete caused by reinforcement corrosion.
- Repairs with improved resistance against oils, sewage, chemicals, etc.

Advantages

- Fast and easy to apply on clean substrates in layers of up to 20 mm thick.
- One-component system requiring only addition of clean water.
- Compatible with the thermal expansion properties of concrete.
- Chloride-free.
- Non-corrosive to reinforcing steel.
- Non- toxic, suitable for potable water.
- Contains fibers to prevent micro crack.
- Non-shrinking.
- Excellent freeze/ thaw resistance.
- Good resistance to long term water immersion.

Technical & Physical Data

Form	Premixed powder
Color	Cement grey
Density	~ 2.0 kg per liter (freshly mixed mortar)
Mixing Ratio	3.4 - 3.5 liters of clean water per 25kg bag to suit desired consistency
Consumption	~71 bags (25kg) per m^3
Application Thickness	Minimum : 3mm Maximum : 20mm
Application Temperature	5°C to 50°C
Compressive Strength (25°C)	1 day: 15.0N/mm^2 28 days: 50.0N/mm^2
Bond on Concrete	> 1.5N/ mm^2 (with bonding bridge)
Water Absorption at 30mm	< 3%
Modulus of Elasticity	< 20,000 N/mm^2
Pot Life	~ 30 minutes at 20°C
Shelf Life	12 months when unopened
Storage	Stored in a dry, cool place.
Packaging	25kg /bag

Important Notes

1. Repairs with PENTENS T-801 do not bridge live cracks or moving joints, etc.
2. Repairs in excess of 20mm must be layered.
3. PENTENS T-801 mortars that are wetted during the initial curing period may produce a white “bloom” on the surface but does not affect the properties of the mortar.

Instruction for Use

Surface Preparation

Precising and efficient surface preparation is essential to achieve the high adhesive qualities of PENTENS T-801. All concrete and mortar substrates must be sound, clean and free from oil, grease and surface contaminants. Remove loose materials by scrabbling. For small areas and for "spot" repairs, needle gunning or scrabbling is more effective.

The substrate should be thoroughly soaked with clean water until uniformly saturated but without surface water. This condition is referred as saturated dry surface. The use of a "fan" shaped water jet is ideal. Steel reinforcement should have all traces of rust removed and be primed with two coats of PENTENS T-306.

Bonding Bridge Concrete

Prior to the application of PENTENS T-801, PENTENS T-306 should be applied as a bonding bridge. Always work "wet-on-wet" on the bonding bridge (refer back to PENTENS T-306 data sheet)

Mixing

PENTENS T-801 should be mechanically mixed in a clean drum using a drill and paddle. A normal concrete mixer is not suitable. Place 3.4 – 3.5 liters of clean water into a clean drum and add in PENTENS T-801 slowly while mixing. A minimum mixing time of 3 minutes is recommended to thoroughly blend the components at a maximum speed of 500 rpm to minimise air entrainment.

Application

Use the wet-on-wet method to apply mortar well onto the substrate, using a rendering rather than a placing technique to fill pores and voids.

Force material against the edge of the repair and towards the center. For repairs in excess of 20 mm deep, apply in layers and form keys for subsequent layers. If previous layers are over 48 hours old, needle guns the surface and dampen before applying the next layer. Steel trowel the final coat if needed.

The PENTENS T-801 and surrounding areas can be further treated with PENTENS waterproofing product to provide a water and carbonation resistant finishing.

Curing

To achieve the full potential of any cement based product, curing is essential. This can be carried out with the application of a curing compound or with other curing practices such as covering with polyurethane sheets or damp hessian for 3 days.

Cleaning

Remove unhardened PENTENS T-801 products from tools and equipment with water. Hardened material can only be removed mechanically.

Safety

PENTENS T-801 contains cement which is alkaline. Suitable precautions should be taken to minimise direct contact with skin. Wear gloves and goggles when using the products. If the product comes in contact with the eyes, rinse immediately with clean water and seek medical advice if irritation persists.

PENTENS

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