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Masspatch

Cementitious repair mortar for non slump, high build repairs of concrete

USES

Masspatch is a high strength, fluid microconcrete, specifically formulated for the repair of damaged concrete where a large, structural repair is required. The specially selected cements and shrinkage compensation additives contained in Masspatch allow the placement of large volume repairs with negligible shrinkage.

BENEFITS

- High strength, durable repair suitable for structural applications
- Easy application
- Low alkali content
- Good flow retention

DESCRIPTION

Masspatch is supplied as a ready to use, factory prepared, dry powder. Masspatch is a blend of Portland cements, aggregates, polymers and chemical additives which reduce water demand and produce a high strength patching material suitable for placement in large volume.

TYPICAL PROPERTIES

Compressive Strength @25°C	
24 Hours -	15 MPa
7 Days -	45 MPa
28 Days -	60 MPa
Initial Set -	165 minutes
Final Set -	270 minutes

PREPARATION

All surfaces to be treated with Masspatch should be clean of oil, grease or any other contaminant which may inhibit the bond. Cracked or weakened concrete should be removed prior to application so as to provide a good foundation for any repair. Scabbling or water blasting can also be used to remove any laitance and provide a mechanical key.

PRIMING

The substrate should be presoaked with clean water prior to carrying out any repair. This operation can be used to check that the formwork is liquid tight. After soaking, all water should be drained from the formwork just prior to commencing placement of Masspatch.

Free water on the surface will reduce the bond and ultimate strength of the repair. Any exposed steel reinforcement should be primed with Zincote, a zinc rich primer for steel, to inhibit further corrosion.

MIXING

Add the required mixing water (2.6 – 2.7 litres per bag) to the mixing vessel and slowly introduce the Masspatch powder. Mix for 3 – 4 minutes using a forced action mixer suitable for mortars, until a smooth consistent mortar is achieved.

Avoid addition of excessive water which will reduce the final strength and make the application more difficult. Always add powder to water slowly while mixing to avoid lumps. Only mix as much Masspatch as can be used within the setting time, and do not attempt to rework or retemper any partially set material.

APPLICATION

Place the mixed Masspatch mortar in the formwork by pouring or pumping in a single continuous operation to fill the repair. If a break is inevitable, it should not exceed 20 minutes before pumping is recommenced.

Pouring or pumping should place the material from the bottom up to avoid entrapment of air. The provision of an entry point at the bottom of the formwork and airbleed holes will help facilitate the placement of large repairs. The minimum thickness applied in any single application should be limited to 25mm, and feather edging should be avoided in patch repairs.

CURING

On completion of the trowelling operation, exposed areas can be cured with a thin layer of Pavecure A, or other suitable curing compound to prevent the loss of surface moisture when the repair is subject to direct sunlight or strong winds.

CLEAN UP

Masspatch should be removed from tools and equipment immediately after completion using water. Cured material can only be removed mechanically.

ESTIMATING & SUPPLY

Masspatch is supplied in 20kg moisture resistant bags. Yield once product is mixed is around 10 litres per bag.

STORAGE

Masspatch has a shelf life of 12 months if kept in dry store in unopened, sealed bags. If stored in high temperature and/or high humidity locations, the shelf life may be significantly reduced.

LIMITATIONS

For low temperature working, when the air is 5°C on a falling thermometer, normal precautions for winter working with cementitious materials should be adopted.

At ambient temperatures above 35°C, ensure sufficient labour for applying and trowelling are available to finish the surface to the required standard before the final set has commenced. Good curing is essential under hot and/or windy conditions.

PRECAUTIONS

Masspatch contains cement powders which, when mixed or become damp, release alkalies which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provide additional skin protection. In case of contact with the skin, rinse with plenty of clean water, then cleanse with soap and water.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

Material Safety Data Sheets (MSDS) are available to users of Aitken Freeman products on request. Please ensure you have read this data sheet, the MSDS, and the product label carefully before first use of any product.

TECHNICAL SUPPORT

Aitken Freeman offers a comprehensive range of high quality, high performance construction products. In addition, Aitken Freeman offers technical support to users and specifiers, and can arrange on-site visits to end users and contractors.

ALLIED PRODUCTS

Aitken Freeman manufactures a broad range of construction products and can supply the following:

- Grouts and anchoring systems
- Epoxy Surface Coatings
- Admixtures for concrete
- Adhesives & Sealants
- Floor toppings
- Floor levelling compounds
- Concrete Repair materials
- Waterproofing solutions

Refer to Material Safety Data Sheet for precautions and personal protection

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