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Tecgrout HES

High early strength non shrink cementitious Class C Grout

DESCRIPTION

Tecgrout HES is a specially designed cementitious non shrink grout for use in critical applications where shrinkage needs to be eliminated, and where high early strength development is a requirement.

USES

Tecgrout HES is suitable for gap widths ranging from 15mm – 100mm. This makes Tecgrout HES ideal for grouting of base plates or other fixings where a very high early strength development is required.

BENEFITS

- Class C grout – has dual compensation for shrinkage in the plastic and hardened state
- No metallic iron content to cause staining or disruptive expansion
- Develops excellent early strength without using chlorides
- Low water content – provides high ultimate strength and low permeability, and ensures the durability and resistance to oil, grease and water.

TYPICAL PROPERTIES (@20°C)

Compressive strength:

1 hour	15 MPa
2 hours	25 MPa
4 hours	33 MPa
24 hours	50 MPa
28 days	57 MPa

Setting times:

Initial	25 minutes
Final	40 minutes

PREPARATION

All surfaces to be contacted must be clean, dry and free of oil, grease or other contaminants which may affect adhesion of the product. Loose concrete or other material should be removed from the surface and repaired prior to application of Tecgrout HES.

The substrate to be grouted can be presoaked several hours prior to grouting, by flooding the area with clean water. Prior to application of Tecgrout HES, any free water should be removed, in particular from bolt holes or other pockets.

Air relief holes can be provided in the base plate to prevent air pockets forming in isolated high points under the plate.

When planning to flow Tecgrout HES through formwork, unrestrained surface area should be minimised by having a maximum gap width of 150mm on the pouring side and no more than 50mm on the opposite side. Preferably there will be no gap on the flanks of the pour.

MIXING

Tecgrout HES is supplied as a preblended 20kg bag. Powder should be added to the prescribed water content as listed below, and mixed using an electric drill and appropriate mixing paddle for 3 – 5 minutes. Larger quantities may require a specialised high shear mixer, and slight agitation may be required for large volumes of mixed grout.

Water content:

Flowable consistency 2.2 – 2.4 litres per 20kg bag

All mixed product should be used within 20 minutes of mixing to get the full benefit of chemical expansion, and to avoid wastage.

APPLICATION

Tecgrout HES can be placed in thicknesses between 15 – 100mm when pouring under a plate. Where thicker sections are required, Tecgrout HES can be bulked out with larger aggregate to reduce the build up of heat.

When pouring through formwork, a constant head should be maintained to provide a continuous front and avoid any air pockets or water being trapped under the plate.

For application of large volumes, Tecgrout HES can be pumped using a heavy duty diaphragm pump.

CURING

On completion of grouting, all exposed surfaces should be thoroughly cured. This can be done with a curing compound in the Aitken Freeman range, continuous application of water and/or wet hessian.

CLEANING

Tecgrout HES should be removed from tools and equipment immediately after use. Cured material can only be removed mechanically.

ESTIMATING & SUPPLY

Tecgrout HES is supplied in 20kg moisture resistant bags. Approximate yield is as follows, and allowance should always be made for wastage.

Flowable consistency yield: 10 litres per bag

STORAGE

Tecgrout HES 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

Tecgrout HES 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.

Tecgrout HES is a fast setting grout that should only be installed by experienced applicators. High temperatures or heat generated by mixing can cause the grout to set prematurely.

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

Please call our office for more information on any of these products.

Refer to Material Safety Data Sheet for precautions and personal protection

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