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# Floor Roc S

## Silicon Carbide and Alumina Based integral surface hardener for concrete

### USES

Floor Roc S is used for improving the durability of conventional concrete by increasing the strength and abrasion resistance of the wearing surface.

Floor Roc S is non metallic and can be used in marine applications to provide a hard wearing, slip resistant finish for the toughest environments.

### BENEFITS

- High strength, hard wearing and impact resistant
- No metallic iron content to cause staining or disruptive expansion
- Aggregate is pure silicon carbide and alumina
- Integral bond with the base concrete
- High ultimate strength and low permeability ensure the durability and resistance to oil, grease and water

### DESCRIPTION

Floor Roc S is supplied as a ready to use, factory prepared, dry powder. Floor Roc S is a blend of Portland cement, graded aggregate and chemical additives which reduce water demand and accelerate wetting out of the floor hardener once applied to the fresh wet concrete.

The low water demand ensures high early strength. The graded filler is designed to produce an easily trowelled finish on the concrete.

**Floor Roc S contains silicon carbide with a MOHS hardness of 9.7 (diamond = 10), and a Knoop Hardness of 2480 kgf/mm<sup>2</sup>.**

### TYPICAL PROPERTIES

Concrete treated with Floor Roc S at 4kg/m<sup>2</sup> has abrasion resistance improved 2 - 3 times that of untreated concrete when tested to ASTM 779.

Fused alumina properties

Knoop hardness 1800 – 2200 kgf/mm<sup>2</sup>  
Toughness (impact) 80.4%

### SURFACE APPLICATION

Apply the dry Floor Roc S to the freshly screeded concrete surface by dusting it on in two applications. The first application should be applied as soon as the surface water has disappeared and the concrete has been screeded to the desired levels.

The Floor Roc S is dusted onto the surface to give an even appearance. The first application is allowed to soak up water from the base concrete before being floated into the surface.

Immediately once this operation is finished the second half of the application may proceed in the same manner as above. Once the second application is floated into the surface the finishing operation is the same as for normal concrete to give the finish desired.

The edges of slabs along formwork and areas near doorways will dry at a faster rate than the rest of the pour and must be watched to ensure that the surface gets the required dose of Floor Roc S and is floated up while there is still sufficient moisture available.

## CURING

On completion of the trowelling operation, exposed areas should be thoroughly cured. This should be done by the use of Chlorcure XF liquid curing membrane, continuous application of water and/or wet hessian.

## CLEANING

Floor Roc S should be removed from tools and equipment immediately after use. Cured material can only be removed mechanically.

## ESTIMATING & SUPPLY

Floor Roc S is supplied in 20kg moisture resistant bags. Coverage is between 2 – 4 kg/m<sup>2</sup>.

## STORAGE

Floor Roc S 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

Floor Roc S 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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