TECHNICAL DATA 7.4.6 Revision Date 12/2004

SILICATE FLOOR HARDENER

Product Codes
TF16, TF17, TF25, packaging listed overleaf

Description
Silicate Floor Hardener, a hardener and dust proofer for concrete surfaces, is a water based solution of silicates which penetrate and react with free lime within the concrete surface. The chemical reaction produces a case hardening to the concrete which reduces abrasion wear plus reduction in dust formation and increased resistance to oils, greases and chemicals. Suitably diluted Silicate Floor Hardener solution is applied by spraying, brushing, watering can or squeegee. Rates of dilution for different qualities of concrete including new or old concrete, granolithic floors and screeds and pre-cast concrete units are given in the table overleaf.

Uses include:
- Harden and dustproof concrete surfaces.
- Reduce permeability of concrete to water and oils.
- Improve floors in warehouses, factories and industrial locations, car parks and hard standing areas.

Specification Outline
Floor hardening treatment shall be carried out using Silicate Floor Hardener as manufactured by Tecroc Products Ltd. The product must be stored, handled and placed strictly in accordance with the manufacturer's instructions.

Typical Physical Properties @ 20°C
Values for undiluted Silicate Floor Hardener

Density 1400kg/m^3

Viscosity 0.9 Pa.S

Quality Assurance
Tecroc Products Ltd is a firm of Assessed Capability. The Company's quality system conforms to BS EN ISO 9001:2000 and is assessed by SGS Ltd Systems and Services Certification.

Instructions For Use
Preparation
The concrete must be clean, free of dust and free from oil and grease. Remove any existing concrete curing membrane or existing coating which may prevent the Silicate Floor Hardener from penetrating the concrete surface. Cracks and holes should be repaired using CR Mortar or CR Mortar Fine. Remove any standing water from the concrete surface prior to the application of the Silicate Floor Hardener. For best results Silicate Floor Hardener should be used on concrete not less than 14 days old.

Mixing
Mixing should be carried out in accordance with the volumes given in the mix design table given overleaf. The dilution will vary according to the floor surface type and it is recommended that a small area is tested first to ascertain the dilution required.

Application
One to three coats will be required depending on the strength and permeability of the concrete. Apply the Silicate Floor Hardener solution by spraying, brushing, watering can or squeegee. Avoid 'pooling' by moving the excess over the surface. The floor will absorb the solution within 6-12 hours leaving a dry surface. Second and third coats may be required once the first coat has dried.

After the first coat has been applied and has dried the concrete absorption will decrease. Second and third coats, if required, should be allowed to dry for some 6 hours then the concrete surface must be thoroughly washed off with clean water. Failure to carry out the washing off stage may result in a surface sheen which can abraid during service and may be slippery in wet conditions.

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Precautions

Working Area

Metal, glass and paintwork surfaces should be protected from contact with Silicate Floor Hardener. Any contact splashes which occur should be washed off immediately with clean water.

Health and Safety

Silicate Floor Hardener is alkaline and should not come into contact with skin or eyes. Avoid inhalation of any air born spray. Safety glasses, gloves and rubber boots should be worn. If contact with skin occurs wash off with clean water. If splashes to eyes occur wash immediately with plenty of clean water and seek medical advice.

Full health and safety data are given in Product Safety Data Sheet.

Fire

Silicate Floor Hardener is non-flammable.

Coverage

Coverage is dependant on type of concrete as described in the table below.

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Concrete type	Volume of silicate to water	m_/litre neat silicate for complete treatment
Porous to moderate strength	1:4 1st coat 1:3 2nd coat 1:2 3rd coat	3.5 to 5.5
Dense	1:4 1st coat 1:3 2nd coat	6.0 to 8.0
Power floated	1:5 1st coat only	20 to 25
Terrazzo/Grano	1:5 1st coat only	20 to 25

Storage And Shelf Life

Silicate Floor Hardener will have a shelf life of 12 months when kept in dry conditions at a temperature of 5°C to 45°C. Storage at higher temperatures may reduce the shelf life. Silicate Floor Hardener should be protected from frost.

Packaging And Ordering

Silicate Floor Hardener is supplied in the following pack sizes:

5 litre	Product Code TF16
25 litre	Product Code TF25
205 litre	Product Code TF17

For further information and sales please contact your local Tecroc Products office as listed below.

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