

JUNE 2020

TECHNICAL DATA SHEET

HiPERHARD (Potassium)

POTASSIUM CONCRETE DENSIFIER

DESCRIPTION

This is a potassium densifier silicate. This densifier penetrates into the concrete surface and blocks the pores or capillaries by formation of calcium silicate hydrate. This calcium silicate hydrate binds within the concrete matrix and hardens the concrete surface resulting in hard, dense, dust free and traffic resistant surface finish. Smooth or gloss finishes can be easily achieved by surface polishing. Due to the high activity of the silicates, the densifier accelerates the concrete polishing process, thus saving time and costs. Unlike traditional sodium silicates, this potassium densifier will not leave residues such as white effloresce or other unwanted residue discolorations on the treated surface.

ADVANTAGES

- Potassium silicates allow quick application with low risk of unwanted residues
- Penetrates into concrete beneath the surface ensuring durable protection
- Maintains appearance and slip resistance of the original concrete finish
- Reduces water absorption and water borne staining
- Environmentally friendly formulation and easy clean up with water
- Ready-to-use low viscose formula enables easy application

USE

This densifier is used as a concrete surface densifier or strengthener. Typical applications include treating polished concrete floors in residential housing constructions, retail establishments, shopping centre foyers and manufacturing warehouses.

TECHNICAL INFORMATION

Density:	20 degrees C – 1.39g per m3
Appearance:	Colourless clear liquid
Solids Content:	<20% by weight
pH value:	12-13
Solubility in water:	Soluble in water

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PREPARATION:

Prior to application, the concrete surface should be completely cleaned of any surface contaminants that would impede the penetration of the product and allowed to dry before application.

Newly cast concrete should be allowed to cure and dry for 28 days. Curing compounds, release agents, or coatings/membranes should be removed from the surface, cleaned and allowed to dry before applying the densifier. In case of acid treated concrete, the concrete surface should be completely neutralised and thoroughly rinsed with water, and allowed to dry before application.

For polished concrete, the surface is firstly removed by grinding to a minimum 200 grit to expose the desired aggregate exposure before application. This will ensure maximum absorption of the densifier and make it easy to further polish to finer grades due to the densification achieved.

APPLICATION

The densifiers can be applied with a low pressure hand sprayer, micro-fibre mop or soft bristle brush/broom. Application rate varies depending on porosity of the concrete and climatic conditions. Dense or steel trowelled newly casted concrete may have a low absorption rate, while old porous concrete may absorb significantly more densifier.

The densifier should be evenly applied onto the surface. Puddling should be avoided. Ensure the densifier is present on the surface as a mirror-like wet liquid film for 10 minutes to ensure maximum absorption. Re-apply wet-on-wet if necessary. Avoid applying the densifier if the surface starts to dry. Brush out any puddles of excess material after 10 minutes. This excess densifier, if not removed, may dry and cause unwanted residue on the surface. This residue may only be removed by using diamond impregnated resin / ceramic diamond tools once the surface has cured and dried. In case of water-proofing application, above application may be repeated several times to ensure fully blocking the pores/capillaries. Shake or stir the sealer before use.

The area may be polished once the surface has cured and dried. For an additional water and/or stain resistant treatment, the application of Hiperguard is highly recommended.

PACKAGING

Concrete densifier is available in 20litre plastic containers

NB: This densifier penetrates and blocks the concrete pores or capillaries, and hardens the surface. However, the degree of pore blocking and surface hardening depends on many factors which are out of the manufacturer's control. It is highly recommended that pilot testing in small areas on site be conducted by the applicator prior to application to determine the suitability of this product for the purpose.

The information and data provided is believed to be correct and given in good faith. End use is beyond the control of the supplier and no warranty as to particular application is given or implied.