

VELOSIT® FH 921

Siliconate Enhanced Floor Hardener

Application fields

VELOSIT FH 921 is a siliconate enhanced concrete floor hardener. VELOSIT FH 921 improves abrasion resistance and substrate appearance whilst also reducing surface absorptivity. Typical application fields besides others are as follows:

- Strengthening of concrete floors in factories, distribution centers and warehouses
- Improving of surface sheen in polished concrete applications
- Fast track finishing of commercial floors as an alternative to coatings and sealers
- On new and existing concrete

Properties

VELOSIT FH 921 is a solvent-free, siliconate enhanced floor hardener based on silicate polymers.

VELOSIT FH 921 can be used on interior and exterior surfaces.

- VOC and solvent free
- Low viscosity
- Improved water and oil repellency on treated concrete floors
- Easy to use
- Reduces abrasion and tire wear

Application

1.) Substrate preparation

a.) Existing concrete must be prepared with sand blasting, shot blasting or high pressure water blasting (>1450 psi/100 bar) to remove all bond breaking substances. Substrate must be open porous and load bearing. The minimum requirement for adhesive strength is 218 psi (1.5 MPa) and for the compressive strength 3625 psi (25 MPa). Repair bug holes, honeycombs and other surface defects with a repair mortar like VELOSIT RM 202.

b.) New concrete must be cured with water or sheet acc. to ASTM C-171. Concrete should

have achieved at least 2900 psi (20 MPa) before application of VELOSIT FH 921. Let the surface dry at least 24 h after curing is terminated.

2.) Processing

In warm weather or at dry or windy conditions, pre-dampen the surface but avoid puddles and standing water.

Apply VELOSIT FH 921 with a sprayer or pour directly onto the concrete. Follow with a squeegee, brush or broom. Work the material into the surface and make sure concrete stays wet with VELOSIT FH 921 for 20 -30 min. Additional material may be sprayed onto the surface to keep the concrete wet. Automatic scrubbers may be used on larger areas. Best results are achieved if a floor polishing machine is used to work the material into the pores.

After VELOSIT FH 921 has started to gel spray the area with clean water and squeegee the diluted material onto the next area to be treated. When the complete area is covered remove all excess material by moving it to a collecting area where it is removed for example by vacuum from the surface. Do not leave excess VELOSIT FH 921 on the surface as this will lead to a hard to remove white efflorescence after drying.

For enhanced oil repellency and maximum sheen apply a second coat and polish to a glossy surface appearance.

3.) Curing

VELOSIT FH 921 does not require curing and is ready for light foot traffic after 4 hours at 73°F (23°C).

Estimating

Concrete floor hardening:
VELOSIT FH 921: 200 ft²/gal (0.2 kg/m²)

Cleaning

VELOSIT FH 921 can be removed in the fresh state with water. Once it has cured only mechanical cleaning is possible.

Quality features

Color: clear
Density: 9.17 lb/gal
Substrate temperature: 50 – 95°F*
(10-35°C)

* observe dew point!

Capillary water absorption: 0.1 kg/m² x h^{0.5}
Penetration depth: > .2" (5mm)
Fire rating EN13501-1: Class A

Packaging

VELOSIT FH 921 is available in 55 lbs (25 kg) Pail, 440 lbs (200 kg) drums or 2420 lbs (1100 kg) totes.

Storage

VELOSIT FH 921 can be stored in unopened original packs for 24 months at 40-95°F (5-35°C) in a dry storage place protected against sunlight.

Safety

Please observe the actual valid material safety data sheet and follow the described safety measures for handling of the product.

Recommendations

VELOSIT FH 921 is only available for professional applicators.

All described product features are determined under controlled laboratory conditions according to the relevant international standards. Values determined under job site conditions may deviate from the stated values. Velosit USA LLC warrants this product for a period of 1 year from the date of installation to be manufactured without defects and to be consistent with printed technical characteristics. Velosit USA LLC makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied.

Please always use the latest version of this data sheet available from our website.
www.velosit-usa.com

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