Griptop HD

Heavy-duty polyurethane floor screed

DESCRIPTION

Griptop HD is a water based polyurethane topping that provides floor surfaces with a slip resistant and cosmetically attractive finish. It is designed for food and chemical processing areas and heavy-duty engineering areas, dairies, breweries etc.

Griptop HD can be steam cleaned and is resistant to boiling water and process liquids up to 120oC when applied at 9 mm or above.

Griptop HD is applied by trowel and can be laid to falls. It has very good durability towards pedestrian and vehicular traffic. It also has very good resistance to many of the chemicals commonly found in an industrial environment.

Griptop HD can be supplied in three-component or four component options and in a variety of colours (consult our Sales Department for further details).

ADVANTAGES

- Hard wearing and excellent impact resistance.
- Resistant to thermal shock and to temperatures -40°C to 120°C at 9 mm thickness; -40°C to 70°C at 6 mm thickness.
- Easy to clean.
- Resistant to a wide range of chemicals.
- Slip resistant.

STANDARDS

Griptop HD complies with EN 13813, SR-B2.0-AR0.5-IR10.

CHEMICAL RESISTANCE

Griptop HD provides resistance to a wide range of chemicals commonly encountered in the food and pharmaceutical industries, these chemicals include:

- Acetic Acid (50%): found in spirit vinegar
- Lactic Acid (10%) @ 60°C: found in milk & dairy products
- Oleic Acid (100%) @ 60°C: used in food processing as an emulsifier
- Citric Acid (25%): found in fruits
- Methanol (100%): representative of alcohols & a range of solvents used in pharmaceuticals.

Griptop HD is also resistant to a wide range of inorganic acids, mineral oils, fats, fuels and solvents. Please contact DCP Technical Department for advice.

TECHNICAL PROPERTIES @ 25°C:

Mixed density:	2.0 ± 0.1 g/cm³
Pot life:	20 - 30 min
Bond strength**: ASTM D4541	≥ 2 MPa @ 28 days (concrete failure)
Compressive strength*: BS 6319-2	≥ 50 MPa @ 28 days
Flexural strength*: BS 6319-3	≥ 14 MPa @ 28 days
Tensile strength*: BS 6319-7	≥ 5 MPa @ 28 days
Impact resistance: EN 13813	10 N.m
Taber abrasion: ASTM D4060 (1000 g, 1000 cycle) H22 wheel	950 milligram
Shore D hardness: ASTM D2240	≥ 80
Temperature resistance:	-40°C to 120°C @ 9 mm thickness -40°C to 70°C @ 6 mm thickness

**Tested at a density of 2.1 g/cm³*
*** Primed concrete substrate.*

Note: Some staining and discoloration may occur upon contact with certain chemicals, depending on the exposure time, nature and housekeeping regime employed. This will not adversely affect the performance of the product.

METHOD OF USE

SURFACE PREPARATION

The surface must be clean, dry (less than 75% RH measured by hygrometer) and free of laitance (see the DCP Guide to Surface Preparation for further details).

To ensure a good bond to the substrate, saw cut grooves that are twice as wide and twice as deep as the screed thickness. The grooves must be opened at a distance of 5 to 10 cm from coves and walls, running parallel to them.

For treatment of surfaces containing expansion joints, consult DCP Technical Department.

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Griptop HD

PRIMING

Scratch coat of Griptop HD; by mixing the Base Pack + Hardener Pack + 1/2 Filler Pack, should be applied by trowel at 0.5 - 1.0 mm prior to the application of the product itself as floor topping in order to provide a mechanical key between the substrate and the floor coating.

Follow the mixing procedure shown below to prepare the scratch coat layer of Griptop HD and apply it over clean prepared substrate.

The scratch coat should be left for 24 - 48 hours to cure before the application of Griptop HD. If the scratch coat is left for more than 48 hours, it is recommended to abrade the coat and apply a fresh coat.

For surfaces with RH between 75 and 85%, prime with one coat of Strongcoat DPM and allow to dry prior to application of the scratch coat. For surfaces with RH greater than 86%, prime with 2 coats of Strongcoat DPM and allow the second coat to dry before priming with scratch coat.

Consult DCP Technical Department for further details about the priming procedure.

Note: Surfaces may also be primed with Strongcoat Primer on which 0.7 – 1.2 mm dry quartz aggregate is scattered at approximately 0.5 kg/m². (see Strongcoat Primer data sheet for further details).

MIXING

For three-component system:
Prior to mixing, stir the individual components to disperse any settlement. Transfer the entire contents of the hardener into the resin component and using a Jiffy-type mixer attached to a slow running electric drill, or the rotary drum mixer, mix for approximately two minutes until a lump-free consistency is obtained. It is important to use a slow-speed mixer operating at 300 - 400 rpm to avoid entrapping air and to achieve a homogeneous mixture.

Once mixed, transfer all the combined material into a Casco or Creteangletype mixer, ensuring that the sides and bottom of the container are thoroughly scraped. With the mixer running, gradually add the entire contents of the filler component and continue mixing for approximately 2 minutes until a uniform, lump-free mix is obtained.

Note: Never mix Griptop HD by hand as this could lead to areas of uncured material.

OCCASSIONAL SPILLAGE

Chemical Resistance after full cure (28 days @ 25°C), ASTM D1308 (Spot - test @ 1 hr)

Organic Acids	
Oleic Acid sat.	R
Citric Acid 25%	R
Acetic Acid 10%	R
Lactic Acid 10%	R
Tartaric Acid 10%	R
Inorganic Bases	
Sodium Hydroxide 40%	R
Ammonia Solution 10%	R
Potassium Hydroxide 50%	R
Aquous Solutions	
Sodium Chloride sat	R
Chlorinated Water	R
Solvents	
White Spirit	R
Xylene	R
Fuels	
Petrol	R
Diesel	R
Engine Oil	R
Hydraulic Oil	R
Brake Fluid	R
Inorganic Acids	
Hydrochloric Acid 10%	R
Nitric Acid 10%	R
Phosphoric Acid 20%	R
Sulphuric Acid 25%	R
Sugar Flavourings	
Sugar solution sat.	R
Glucose syrup sat.	R
Carbonated beverages	
Pepsi/Coca Cola	R
Mirinda/Fanta	R
7UP	R

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For four-component system:
Prior to mixing, stir the individual components to disperse any settlement. Transfer the entire contents of the colour pack into the resin component and mix using a Jiffytype mixer attached to a slow-speed electric drill for approximately 2 to 3 minutes, until a uniform, lump-free consistency is achieved.

Once mixed, add the entire contents of the hardener component to the resin and colour pack mixture. Continue mixing with a Jiffy-type mixer or a rotary drum mixer for approximately 2 minutes, ensuring a smooth, lump-free consistency. It is important to use a slow-speed mixer operating at 300–400 rpm to avoid entrapping air and to achieve a homogeneous mixture.

After mixing the resin, colour pack and hardener, transfer the combined material into a Casco or Creteangle-type mixer, ensuring that the sides and bottom of the container are thoroughly scraped. With the mixer running, gradually add the entire contents of the filler component and continue mixing for approximately 2 minutes until a uniform, lumpfree mix is obtained.

Note: Never mix Griptop HD by hand as this could lead to areas of uncured material.

APPLICATION

Once mixing is complete, transfer the Griptop HD to the primed surface and, using a straight-edged steel trowel, apply it evenly.

When applying each kit of Griptop HD, leave approximately 200 mm of the closest working edge untrowelled as this will help the blending in of the next kit.

Take care not to excessively trowel the Griptop HD as this will lead to burnish marks on its surface.

After application, perform light surface rolling in one direction (without back-rolling) to help level the material. Be cautious not to over-roll, as this may increase pinholes.

LIMITATIONS

- Ensure good ventilation in the application area to prevent excessive ambient humidity, which could affect the product's performance.
- To minimise colour fading and the effect of efflorescence, protect the installed floor from damp, condensation, and water for 4 to 5 days.
- The substrate and uncured floor must be kept at least 3°C above the dew point to reduce the risk of condensation or blooming on the surface.
- In areas of exposure to direct UV light, Griptop HD is susceptible to some yellowing with time, especially with light Griptop HD colours. This will not adversely affect the performance of the product.

OCCASSIONAL SPILLAGE

Chemical Resistance after full cure (28 days @ 25°C), ASTM D1308 (Spot - test @ 1 hr)

Electrochemical solutions	
Copper Sulphate 1M	R
Zinc Sulphate 1M	R
Fruit juices	
Orange juice	R
Apple juice	R
Lemon juice	R
Fats	
Vegetable Oil	R
Cleaning Aids	
Dishwashing liquid	R

R: Resistant

WORKING TIME

Griptop HD has a working time of approximately 20 minutes at 25°C.

Note: Never leave the mixed Griptop HD kit to stand for any length of time before application, as this will considerably shorten its working time.

WORKING CONDITIONS

Griptop HD should not be applied at temperatures less than 5°C.

CURING TIME

At 25°C, Griptop HD can be opened to pedestrian traffic after 12 hours and heavy wheeled traffic after 24 hours. At the same temperature, it should be allowed to cure for seven days before exposing it to chemical contamination (consult DCP Technical Department for details of curing times at other temperatures).

CLEANING

Once mixing, application and finishing are complete, tools can be cleaned with DCP Solvent.

In order to enhance and maintain life expectancy, slip resistance and aesthetic properties, regular cleaning should be done using industry standard cleaning chemicals and equipment. Please contact DCP Technical Department for advice. Griptop HD can be steam cleaned at 9 mm.

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PACKAGING

Griptop HD is available in 30 kg (15 litre).

THICKNESS RANGE

6 - 9 mm.

COVERAGE

Approximately 2.5 m² per kit at 6 mm thickness.

STORAGE

Store at temperatures between 5°C and 30°C.

SHELF LIFE

Griptop HD has a shelf life of 6 months from date of manufacture if stored in unopened containers and under good conditions.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Consult the appropriate Material Safety Data Sheet prior to using each product.

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- Adhesives.
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- Building products.
- Structural strengthening.

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