

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.

Griptop HD can be steam cleaned and is resistant to boiling water and process liquids up to 120°C 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).

APPLICATIONS

Griptop HD is designed for use in a wide range of applications:

- » Heavy industry factories.
- » Food and beverage, pharmaceutical, and chemical industries.
- » General food, dairies, breweries, processing and manufacturing plants.
- » Chemical processing areas.

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.

TECHNICAL PROPERTIES @ 25°C:

Mixed density:	2.0 ± 0.1 g/cm ³
Pot life:	15 - 25 min
Pedestrian traffic:	18 hr @ 25°C
Heavy wheeled traffic:	24 hr @ 25°C
Full cure:	7 days @ 25°C
Compressive strength: BS 6319-2	≥ 50 MPa @ 28 days
Flexural strength: ASTM C580	≥ 12 MPa @ 28 days
Tensile strength: BS 6319-7	≥ 5 MPa @ 28 days
Bond strength: ASTM D4541	≥ 2 MPa @ 28 days (concrete failure)
Impact resistance: EN ISO 6272	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

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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.

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.

At all wall-to-floor junctions, a coving system shall be installed prior to the application of the floor screed to ensure a seamless and hygienic transition. The coving shall be formed using Griptop Cove Pack and sealed with Griptop Cove Pack Seal, applied to achieve a smooth, concave profile between the vertical and horizontal surfaces.

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

PRIMING

For optimal performance, surfaces should be primed using Strongcoat Primer with a broadcast of 0.7 – 1.2 mm dry quartz aggregate at approximately 0.5 kg/m² prior to the application of Griptop HD. The primer should be applied in accordance with its technical data sheet to ensure proper adhesion to the prepared substrate.

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OCCASIONAL 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

Aqueous 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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Where elevated substrate moisture is present, priming must be carried out using Strongcoat DPM. For surfaces with relative humidity (RH) between 75% and 85%, apply one coat and allow it to dry prior to subsequent application. For RH levels greater than 85%, apply two coats, ensuring the second coat is fully cured before proceeding.

As an alternative, where site conditions necessitate, a scratch coat of Griptop HD may be used as a priming layer. The scratch coat shall be prepared by mixing the base pack, hardener pack, and half (½) of the filler pack, and applied by trowel at a thickness of 0.5 – 1.0 mm to provide a mechanical key between the substrate and the subsequent floor topping.

The scratch coat must be prepared following the prescribed mixing procedure and applied onto a clean, properly prepared substrate. It should be allowed to cure for 24 – 48 hours prior to the application of the main Griptop HD layer. If this interval is exceeded, the surface must be mechanically abraded and a fresh scratch coat applied.

The use of a scratch coat as a primer should be carefully assessed based on site conditions and is recommended only where appropriate.

MIXING

For three-component system:

Prior to mixing, stir each component thoroughly to eliminate any settled deposits. The entire contents of the hardener container should be poured into the base container and mix using a Jiffy-type mixer fitted to a slow-speed electric drill for approximately two minutes, or until a smooth, lump-free consistency is achieved. The mixer speed should be maintained at 300 - 400 rpm to prevent air entrapment and ensure a uniform blend.

Once the base and hardener have been mixed, transfer the mixed material into a Casco or Creteangletype mixer, ensuring that the bottom and sides are thoroughly scraped.

Start the mixer and gradually add the entire contents of the filler container, making sure the filler is dry and free from lumps. Continue mixing for approximately two minutes until the mixture is homogeneous.

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

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.

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OCCASIONAL 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
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Cleaning Aids

Dishwashing liquid	R
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R: Resistant

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.



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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.

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.

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.

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.

Actual coverage can vary depending on the substrate conditions.

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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- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.