

Corrogard HD

Polyurethane screed

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Product Features

Corrogard HD is a heavy-duty, high performance, anti-slip polyurethane screed. **Corrogard HD** is a slip-resistant screed, designed to provide safety under foot and cleanability. It also provides superior all-round performance with built-in chemical resistance, wear, impact and abrasion resistance, and thermal shock resistance.

Typical Uses

Corrogard HD is suitable for a wide range of industries and applications and is used to provide anti-slip surface with excellent chemical, impact and wear performance. It is resistant at temperatures from -25°C to 120°C at 9 mm thickness. It is a low odour and solvent free, easy to clean system. Optional biocide additive can be added. For its benefits it is suitable for food processing areas, including bakeries. Also for brewing and beverage industry, dairy processing, pharmaceutical, chemical processing and storage, etc.

Technical Data

Properties	Test Standards	Typical Values
Compressive strength		: 58 N/mm ²
Compressive modulus		: 9850 N/mm ²
Flexural strength		: 14 N/mm ²
Flexural modulus		: 2,400 N/mm ²
Tensile strength		: 6 N/mm ²
Tensile modulus		: 450.3 N/mm ²
Flash steam cleanable		: up to 120°C
Water permeability		: NIL
Slip Resistance		
Product	Surface Roughness (R _{tm})	Dynamic co-efficient of friction (Pendulum Slip Test Method)
Corrogard HD	18.6	Dry: 60 Wet: 34
Corrogard HD backrolled	19.3	Dry: 67 Wet: 37
Curing time @ 18°C		
Light traffic		: 16 hours
Heavy traffic		: 48 hours
System make-up		
Primer		: 1 x coat primer
System		: 1 x application Corrogard HD
Sealer coats		: none as standard
Optional variations		: gloss sealer coat; back rolled finish, biocide additive
Finish		: white speckled, resin rich matt, anti-slip
Thickness		: 6 - 10 mm
Standard colours		: red, buff, terracotta, green, dark grey

Abrasion resistance	BS 8204-2 Class AR1	: Maximum wear depth 0.03 mm
Chemical resistance		: highly resistant to a wide range of chemicals including many solvents, acids and alkalis

Note: All values given are subject to 5 - 10% tolerance.

Directions for Use

Preparation

Concrete

Concrete substrates should be a minimum strength of 35 N/mm², with a minimum cement content of 320-350 Kg/m³. Substrates should have minimum laitance and be free from dust and contamination. Substrates should be free of any unseen defects such as structural instability or intermediate delamination. Tolerances and levels in concrete substrates should be of the standard required of the seamless resin finish. Substrates should be dry to 75% RH as per BS8204 or by Vaisala thermo hygrometer type HMI 31. Substrate should incorporate suitable primer such as **Corrogard HD** and be free from rising dampness, moisture and osmosis.

Newly laid substrates must be allowed sufficient drying out time prior to overlaying. The drying time required will depend upon ambient temperatures, humidity and substrate thickness.

Corrogard HD should not be applied to the following substrates: asphalt, unmodified sand cement screeds, PVC tiles or sheet.

Careful preparation of the substrate is essential. A detailed inspection of the substrate must be undertaken to determine the nature of preparation required eg. Mechanical scarifying, diamond grinding, shot blasting, chemical decontamination, hot compressed air treatment. Any E/C joints and cracks where differential movement is anticipated, should be brought through the finished surface and suitably sealed. To ensure maximum holding, grooves must be cut into the perimeter of the floor to a width of 8 mm and depth of 8 mm. This groove should be inserted 100 mm away from edges running parallel along the wall and adjacent to doorways and plinths, etc, including finish edges and joints. The grooves must be clean, square edged and product laid into full depth of groove creating a perimeter anchorage. Steel decking should be prepared to S.A. 2.5 or similar. Steel deck of 4 mm thickness is recommended, must be clean, sound and properly supported to prevent flexing.

Priming

The dry, prepared, dust-free substrate should receive a roller applied coat of **Corroprime EP SF**. More uneven substrates should instead receive a 1 mm scratch prime coat. A second

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primer may be required and depends upon the porosity and condition of concrete. If needed, the final coat of primer may be scattered with fine aggregate to provide a mechanical key. After approximately of 1 - 1.5 hours curing time at 20°C, the product can be applied.

Mixing

It is essential that the mixing instructions are carefully followed to ensure the correct characteristics of the product are achieved. Failure to do so can result in lower performance or even possible failure of the product.

Part A and part B of **Corrogard HD** must be mixed together for 1 minute using a forced action mixer or a mixing vessel. Powder component C and pigment is added to the mixer under mixing conditions for 2 minutes to create homogenous mix. Only whole units are to be mixed, nothing is to be added or left out. The mixed material should be placed to primed surface without delay and levelled to require thickness.

Application

Correct temperature is critical to the successful application of **Corrogard HD**. Air temperatures should be maintained between 15°C and 25°C during the application and curing period of this product. It is also strongly recommend that the application area is cooled to temperatures of between 15°C and 25°C for up to 24 hours prior to application to allow the ambient and substrate temperatures to regulate before the application commences. Materials should also be kept in a cool area of 12°C minimum temperature for minimum 12 hours prior to application. De-humidifiers must be used where high humidity conditions prevail. Ensure adequate ventilation during application.

Corrogard HD should be mixed as per instruction and trowel applied to a thickness of between 6 and 9 mm.

All expansion joints should be followed through the resin floor finish using a joint mastic. If concrete movement or cracking takes place after application then reflective cracking of the topping may occur.

The texture of the **Corrogard HD** through different mixes may on the finished floor surface provide a banded or slightly variable appearance. This is a natural, visual aspect of the system, which can also be influenced by atmospheric conditions and is not defective in anyway. Polyurethane systems have limited colour stability which can result in discoloration of the floor over a period of time upon exposure to UV light. The standard colour range of **Corrogard HD** has been carefully chosen to provide a colour range limiting the extent of discolouration .

Curing

Newly laid substrates must be allowed sufficient drying out time prior to overlaying. The drying time required will depend upon ambient temperatures, humidity and substrate thickness.

Hot weather conditions

For application above 40°C we recommend adopting the following guidelines:

Store unmixed materials in a cool preferably air conditioned environment with temperatures between 15°C and 25°C at least 24 hours before application.

Avoid exposure of mixed & unmixed materials to direct sunlight.

Keep equipment that will be in contact with the product cool and away from direct sunlight.

Cleaning

Wet screed can be washed easily from tools and equipment. **Corroclean** may be used if required. Hardened material can only be removed mechanically.

Limitations

Substrate temperatures should be above 15°C and not more than 25°C.

For application in temperatures above 40°C please refer to hot weather condition recommendations.

Avoid application if the work area may be subject to the onset of rain or moving water.

Do not part mix under any circumstances.

All products should be used within the pot life. Materials not used within the specified time should be discarded.

If the above general application details do not meet with your requirements, please contact Corrotech for a project specific method statement.

Estimating

Corrogard HD pack size: 24 kg kit. Coverage rate approximately 1.9 m² per kit at 6 mm thickness

All coverage rates given are theoretical and subject to actual site conditions. We recommend trial areas are done to establish practical consumption particularly for primers.

Corrogard HD

Polyurethane screed

Health & Safety

Always use appropriate PPE including gloves, goggles and a barrier cream to avoid contact with skin and eyes.

Should contact with skin or eyes occur, wash immediately with plenty of clean water and seek medical advice.

If swallowed, seek medical attention immediately. Do not induce vomiting.

Avoid inhalation and ensure adequate ventilation or suitable respiratory equipment if working in confined spaces.

Do not expose products to fire or naked flames under any circumstances.

Always refer to the product Material Safety Data Sheet (MSDS) for full health & safety and handling recommendations.

Storage

Corrogard HD has a maximum shelf life of 6 months from the date of manufacture.

To maximize shelf life always store products in their original, unopened packaging in a dry environment, away from direct sunlight with a minimum temperature of 10°C but not exceeding 25°C.

Damaged packaging, high humidity or extreme temperatures may reduce the shelf life.

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