

Corrogard SS

Polyurethane screed

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Product Features

Corrogard SS is a self-smoothing polyurethane resin floor screed. It has a seamless, matt finish ensuring maximum ease of cleaning. It offers medium duty / temperature performance, good chemical resistance and fast application. It will provide a long-term durable and hardwearing floor surface ideal for dry production and processing environments.

Typical Uses

Corrogard SS is suitable for a wide range of industries and applications where ever there is a need for a durable, cost-effective system, with good chemical resistance. It is suitable for dry processing areas, warehousing and storage areas, engineering facilities, pharmaceutical production, chemical storages, etc. It is low odour, solvent free and fast application and quick cure make it an ideal choice. The product has matt finish and it is easy to clean.

Directions for Use

Preparation

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 hydrometer type HMI 31. Substrate should incorporate suitable primer such as **Corroprime EP SF** 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 SS** 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 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, which 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 coat of primer may be required depending 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 to 1.5 hours curing time at 20°C, the product can be applied.

Mixing

Part A and part B of **Corrogard SS** must be mixed together for 1 minute using a forced action mixer or a mixing vessel. The powder component C and pigment is added to the mixer under mixing conditions for 2 minutes to create a homogenous mix.

Technical Data

Properties	Test Standards	Typical Values
Compressive strength		: 46 N/mm ²
Flexural strength		: 21 N/mm ²
Dynamic E-modulus		: 14000 N/mm ²
Tensile strength		: 7.5 N/mm ²
E-modulus in compression		: 1100 N/mm ²
Coefficient of thermal expansion	ASTM C531, Part 4.05	: °C ⁻¹ 3.6 x 10 ⁻⁵
Temperature resistance @3 mm		: -10°C to 60°C
@ 5 mm		: -10°C to 80°C
Flash steam cleanable		: yes
Water permeability		: NIL
Slip Resistance		
Product	Surface Roughness (R _{tm})	Dynamic co-efficient of friction (Pendulum Slip Test Method)
Corrogard SS	8.0	Dry: 72 Wet: 26
Curing time @ 18°C and above		
Light traffic		: 16 hours
Heavy traffic (full chemical cure)		: 48 hours
System make-up		
Primer		: 1 x coat primer
System		: 1 x application Corrogard SS
Sealer coat		: none
Optional variations		: none
Finish		: smooth, matt finish
Thickness		: 3 - 6 mm
Standard colours		: red, buff, terracotta, green, dark grey
Chemical resistance		: good resistance to a wide range of chemicals including wide range of solvents, acids and alkalis

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

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Only whole units are to be mixed, nothing is to be added or left out. The mixed material should be applied to the primed surface without delay and levelled to require thickness.

Application

Correct temperature is critical to the successful application of **Corrogard SS**. Air temperatures should ideally be maintained between 18°C and 23°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 18°C and 23°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 cooled area of 15°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 SS should be mixed as per instructions and poured onto the substrate, then trowelled to a thickness of between 3 - 5 mm. A spike roller should be passed through the trowelled material to assist flow and release trapped air.

All expansion joints should be followed through the resin floor and finished 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 SS** through different mixes may on the finished floor surface provides banded or slightly variable appearance. This is 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 SS** has been carefully chosen to provide a colour range limiting the extent of discoloration.

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. Primer can be applied to newly installed concrete substrates without waiting for conventional cure periods.

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 and 25°C minimum 12 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 18°C and not more than 23°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 SS pack size: 19 kg kit. Coverage rate approximately 3 m² per kit at 3 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.

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.

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Storage

Corroagard SS 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.