

CHEMFLOOR™ Novolac HS

Highly Chemical Resistant High Solids Novolac Epoxy Resin

Product Description

CHEMFLOOR™ Novolac HS epoxy system is a low viscosity, high performance, Novolac epoxy resin coating system.

Product Uses

CHEMFLOOR Novolac HS is suited to use in water and sewage treatment, chemical and food processing areas, giving excellent protection against alkalis and acid solutions. Used instead of normal epoxy for high chemical or heat resistance, particularly for hot fat deep frying in commercial kitchens.

Used for floors, walls, storage tanks, equipment and bunds. It is suitable for concrete, masonry or steel.

CHEMFLOOR Novolac HS coating system can be used as a laminating resin with fibreglass cloth, mat or tissue.

Features

- Easy to use by roller or brush.
- System is vapour proof and does not support bacterial growth
- Hard wearing and suitable for foot traffic and rubber-tyred vehicles.

Preparation

Surfaces must be sound, smooth, and free from dust, oil, grease or other contaminants. Repair defects.

- Non-porous, dense concrete should be etched with diluted phosphoric acid and flushed clean with water or otherwise mechanically abraded.
- Concrete should be cured for minimum 28 days and have a moisture content of 5% or less. Moisture testing of concrete prior to installation is recommended.

Application to New Concrete

- New concrete should be cured for 28 days and have minimum compressive strength of 25 MPa.
- Do not use surface curing agents.
- The surface must be free of cement laitance. Mechanical grinding or shot blasting is recommended.
- Prime concrete with Novolac HS at the rate of 6 – 8 m²/litre (mix ratio Part A:Part B is 3:1 by volume).

Mixing

Part A and B should be mixed together at low speed, for 3 minutes to give uniform colour consistency. Allowing mixed resins to develop heat in the mixing container to above 18°C in cold weather will assist in speeding cure of the applied product.

Application

Apply CHEMFLOOR Novolac HS by brush or roller in 2-3 coats to achieve a minimum 0.9mm DFT. Allow to fully cure before exposure to chemicals.

Do not apply CHEMFLOOR Novolac epoxy coating system to surfaces subject to rising damp.

High atmospheric humidity or drop in ambient temperature to around dew point 4°C may result in condensation on the uncured film, causing blooming in surface. As a consequence, roughening of the surface by mechanical abrasion will be required. Although the coating will cure at low temperatures, the extended gel times may make the resultant film susceptible to water spotting. Maximum relative humidity during cure should not exceed 85%.

For a non-slip finish, broadcast silica sand or grit into first wet coat to give required slip resistant finish. Mesh size used may increase quantity of CHEMFLOOR needed to achieve desired finish.

Performance

CHEMICAL	30 DAYS	6 MONTHS	12 MONTHS
10% Nitric	95-100%	85-90%	<85%
10% Phosphoric	95-100%	90-95%	85-90%
10% Sulphuric	95-100%	95-100%	90-95%
60% Sulphuric	95-100%	95-100%	85-90%
32% Hydrochloric	95-100%	95-100%	85-90%
5% Hydrochloric	95-100%	95-100%	90-95%
5% Acetic	95-100%	90-95%	85-90%
5% Lactic	95-100%	90-95%	85-90%
50% Caustic	95-100%	95-100%	95-100%
Xylene	95-100%	95-100%	90-95%
Kerosene	95-100%	95-100%	95-100%
MIBK	95-100%	90-95%	85-90%

NOTE:

1. % original hardness
2. Continuous Immersion at 20°C

Colours

Special colours are available in CHEMFLOOR Novolac HS. Packaging of special colours is: Part A 10.5 litres, Part B 3.6 litres and Colour Pack 1.5 litres. Contact your local GCP representative for cost and availability.

NOTE

- Do not thin, as this may have adverse effects on cured film properties.
- Resurfacing of old epoxy or re-coat after several days cure will require thorough mechanical abrasion of the surface to ensure good adhesion.
- Ensure adequate ventilation of work area and use PPE as detailed in product MSDS.
- Avoid unproven colour pigments. If doubt exists, test colour pack in a small mix.
- Take precautions to avoid skin contact. Use barrier cream and disposable polyethylene gloves. Refer to MSDS for all requirements.

Packaging

CHEMFLOOR Novolac HS is available in 14.1 litre kit.

Shelf Life

Unopened containers have 12-month shelf life from date of manufacture, when stored in a dry, cool place.

Typical Properties

PROPERTY	CHEMFLOOR NOVOLAC HS
Colour Part A	Clear or Coloured
Colour Part B	Clear
Mix Ratio (by volume)	Part A : Part B 3 : 1
Pot Life	35 min. @ 20 °C (4 lit mix)
Solids Content v/v	90%
Flexural Strength ASTM D790-90	
Modulus	2750MPa
Strength	75MPa
Pull Off Bonding Strength	> 3 MPa (concrete)
Application Range	10–35 °C (air and substrate)
UV Resistance	Will discolour and chalk
Maximum Recoat Time	18 hrs @ 20 °C

Cure Time (approx)

Light Traffic 12 hrs

Full Cure 7 days

Clean-up

Remove any uncured CHEMFLOOR with MULTITEK™ Xylene. Exercise care when using solvents. Please review MSDS before use.

Health and Safety

In case of spills and accidents, refer to the Material Safety Data Sheet (MSDS) of the products or when in doubt contact your local GCP representative. Always wear protective clothing, gloves and protective goggles when handling chemical products. For full information, consult the relevant MSDS.

Limitations

Information contained in this document does not cover all possible application scenarios or imply product suitability for an application. Please contact your local GCP representative or the GCP Technical Department for further information.

Warranties

GCP and contractors recognised by GCP as experienced in the application of GCP products will provide warranties for individual projects. Warranty periods offered are dependent on project details and complexity. Requests for very long warranty periods may necessitate increased membrane thicknesses to ensure longevity. Contact your local GCP representative for further details.

This information contained in this product data sheet supersedes all previous versions.

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Last Updated: 2025-05-13

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