

High Chemical Resistance Epoxy Resin

HI-CHEM-320

High Chemical Resistance, High Build, 100% Solids Pigmented Epoxy Coating



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Description

HI-CHEM-320 is a specialist, high performance epoxy resin formulated to provide resistance to chemical exposure. Suitable for the aviation industry being skydrol resistant.

With excellent abrasion resistance, **HI-CHEM-320** is also suitable for chemical warehouses, assembly areas, printing shops, laboratories, areas of light manufacturing, mechanical rooms.

HI-CHEM-320 is a two-component 100% solids high build epoxy resin floor coating, provides a tough, hard wearing coating in liquid containment areas or where acid and alkaline attacks may be present.

Coverage

Coverage varies widely due to the porosity and profile of different substrates.

1kg cover 3 to 4 m² (per coat)

* Coverage figures given are theoretical. Practical coverage rates may vary due to wastage factors and the type, condition, profile and porosity of the substrate.

Appearance

Gloss finish in a range of standard colours (see the Sindec Chemicals Colour Chart).

Features & Benefits

- High Chemical Resistance
- Skydrol resistant
- Low VOC
- Low Odour
- Alkaline & Acid chemical resistance
- Impermeable and seamless
- Protects concrete from oil and chemical spillages
- High build with excellent wear resistance
- 100% solids
- Easy application
- Gloss, easy to clean finish
- Non-dusting
- Slip-resistant options available
- Nonyl phenol free - reduced hazard
- May apply several layers onto itself with excellent adhesion

Mixing

Pour part B into part A, stir and completely blend both components using a low-speed mixer using paddle mixer for a minimum of 3 minutes @ 300-400 rpm. Transfer mixed resin into a clean new bucket and mix for a 1 further minute.

Product Application

Once mixed, **HI-CHEM-320** should be applied immediately in a thin continuous film at 300g/m². Work the resin into the surface using a squeegee then roll to avoiding pooling. On porous surfaces **HI-CHEM-320** will be absorbed very quickly, use enough required amount of resin to ensure complete surface sealing.

Environmental Conditions

HI CHEM 320 should not be used or applied at temperatures outside of at range of <10°C to >25°C
*temperature control will be required if below this range, otherwise, this will effect the cure period, surface finish and strengths. Surface temperature must be at least 3°C above the dew point. Air temperature should be above 5°C and relative humidity at less than 70%,

Maximum application temperature is 40°C. Best conditions are 15°C to 25°C, these conditions should be maintained during all the curing time. Application should be carried out with plenty of air ventilation.

Substrate Requirements

Inadequate preparation will lead to loss of adhesion and failure. In coatings, there is a tendency for the finish to mirror imperfections in the substrate. Grinding or light self-contained shot blasting is therefore preferred.

If in doubt, apply a test area first.

Requirements as follows:

- Flat and Smooth.
- Compact and Cohesive (Pull off test must show a minimum resistance of 1.4N/mm²).
- Minimum compressive strength of 25N/mm².
- Even and regular surface.
- Free from cracks and fissures. If any, they must be previously repaired (we recommend using Sindec Epoxy Crack Filler).
- Clean and dry, free of dust, loose particles, oils, organic residues, laitance and contaminants.

Oil & Grease

Isolated contamination should be removed using an appropriate degreaser, rinsed thoroughly, and allowed to completely dry. A coat of **OT-235 (Oil Tolerant Primer)** should then be applied (see separate datasheet)

Tool Cleaning

Tools and equipment should be cleaned whilst the resin is still wet using **Sindec Tool Cleaning Solution**



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Reapplication

A Second coat is possible as soon as the first one is cured (normally next day) and within the following 24 hours.

Return To Service

Foot traffic: Allow 24-48 hours. Full chemical cure is achieved after 7 days (approximately) Caution: Contact with water when not fully cured may lead to white stains.

General Maintenance

HI-CHEM-320 can be easily cleaned using industry standard cleaning chemicals and techniques designed for epoxy resin flooring. Test cleaning agents prior to use in a small area. Do not steam clean or subject to temperatures in excess of 50 °C. Spillages must be removed immediately.

Technical Information

PRODUCT INFO BEFORE APPLICATION

	Component A	Component B
Chemical Description	Epoxy	Polyamine Mixture
Physical State	Liquid	Liquid
Packaging Kits		
5kg kit - Components A & B 10kg kit - Components A & B 15kg kit - Components A & B		
Non-volatile content (%) approximate	>95%	98%
Colour	Pigmented	Slightly Amber
Mixing Ratio	A = 100 by weight	B = 25 by weight
Mixture Properties	1·10 g/cm3 at 23°C 1000 mPa.s at 23°C	
Use Before	12 months after manufacturing date	
Pot Life	Temp (°C)	Pot Life (100 g, min)
	20	25 mins
Storage	Keep between 15°C and 30°C. Component A may crystallize if stored for protracted periods under certain conditions. If this occurs, it can be restored to its original conditions by heating it to 70-80°C and stirring it thoroughly.	
	Shelf Life 12 Months (if unopened)	

FINAL PRODUCT INFORMATION

Final State	Solid Coloured Membrane, Glossy Material
Colour	Pigmented. Available in RAL or BS 4800
Hardness (Shore)	80 Shore D hardness after 7 day > 23°C
UV Resistance	Undergoes slight ambering under sunlight and UV exposure, hardly noticeable in indoor application. No mechanical properties are affected.
Chemical Resistance	Contact Sindec Chemicals for information

Disposal of Containers

Empty containers must be handled with the same precautions as if they were full. Treat empty containers as hazardous waste, and transfer them to an authorized waste manager. If the containers still have some material left, do not mix with other product before considering the risk of potential dangerous reactions.

Technical Advice

For further information on this or any other Sindec product, please contact our office.

Health & Safety

Before using this product, please ensure that you have received and read the product Safety Data Sheet. Refer to hazard labelling on the product. Wear gloves and avoid contact with skin and eyes.

Additional Information

The information contained in this document, and all further technical advice given is based on our present knowledge and experience. However, it implies no liability or legal responsibility on our part. In particular, no warranty or guarantee of product performance in the legal sense is intended or implied as the conditions of use and the competence of any labour involved in the application are beyond our control. Properties and coverage rates shown are for guidance purposes only. The user of the product must determine the product's suitability for the intended purpose.

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