

Description:

TechnoCoat[®] Novolac HS is a solvent free, durable, High performance, excellent wear and chemical resistance epoxy resin Novolac coating system designed for use as a chemical resistant Lining, Coating and hard wearing coloured flooring system for areas such as factories, warehouses, Chemicals unit etc.

TechnoCoat[®] Novolac HS consists of preweighed base & hardener components and a TechnoFloor[®] colour pack, all of which contain reactive elements that are essential to the installation of the system. TechnoCoat[®] Novolac HS is suitable for use on concrete and steel surfaces. The material may be used with or without antislip aggregates and can also be laminated with glass fibre cloth to achieve a high build, chemical resistant lining.

Application Includes:

TechnoCoat[®] Novolac HS is ideally suited for use as a protective top coating for other epoxy systems to provide improved surface chemical resistance in:

- Chemical Plants
- Pulp and Paper Mills
- Food Processing Plants
- Dairies, kitchens, and meat processing plants
- Battery Storage and Charging Areas
- Plating and galvanizing Plants
- Waste Treatment, effluent treatment, and seawater Plants
- Pharmaceutical, medical and laboratory facilities
- Steel & copper production facilities

Features & Benefits:

- Excellent Chemical Resistance.
- Excellent resistance to thermal shocks.
- Solvent-Free and conforms to VOC regulations.
- High gloss, easily cleaned surface.
- Excellent Bond to Concrete, Steel.
- Good abrasion resistance
- Easy and fast application.

Applications Instructions:

Substrate Preparation

Concrete substrate should be a minimum of 25N/mm², free from laitance, dust and other contamination. The substrate should be dry upto 75% RH as per BS8204 and free from rising damp and ground water pressure. The long term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate. It is most important therefore that substrates are correctly prepared prior to application.

New concrete floors

These should normally have been placed for at least 28 days and have a moisture content of less than 5%. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excess laitance deposits are best removed by light mechanical scabbling, grinding or grit/captive blasting followed by vacuum cleaning to remove dust debris.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. As for new concrete floors dry removal of laitance deposits are best removed by light mechanical scabbling, grinding or grit/captive blasting. Oil and grease penetration should be removed by the use of a proprietary chemical de-greaser or by hot compressed air treatment. Any damaged areas or surface irregularities should be re-paired using one of the TechnoFloor[®]EUL* range products.

Priming

Priming is not normally required provided the substrate is sound, untreated and good quality nonporous concrete. If any doubts exist of the quality of the concrete, or if it is porous it should be primed with TechnoSeal[®] EP *. Contact the Sterling Technotrade local office for advice. TechnoSeal[®] EP should be mixed in the proportions supplied. Add the entire contents of the hardener can to the base can. When thoroughly mixed, preferably using a slow speed drill and paddle, the primer should be applied in a thin continuous film, using rollers or stiff brushes. Work the primer well into the surface of the concrete taking care to avoid ponding or over application. The primer should be left to achieve a tack-free condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

Mixing

The base and hardener components of TechnoCoat[®] Novolac HS should be thoroughly stirred. The entire contents of the colour pot should be poured into the base container and the two materials mixed thoroughly, then add the hardener component and mix for at least 3 minutes. The use of a heavy-duty slow speed, flameproof or air driven drill fitted with a mixing Paddle is desirable. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

Standard application

The first coat of TechnoCoat[®] Novolac HS should be applied using a good quality medium haired pile roller, suitable for epoxy application, or squeegee to achieve a continuous coating. Ensure that loose hairs on the roller are removed before use. A minimum film thickness of 500 microns should be applied. This can be increased where specifications demand. When the base coat has reached initial cure (12 hours @ 20°C or 5 hours at 35°C). The top coat can be applied by medium haired roller, at minimum film thickness of 200 microns. Care should be taken to ensure that a continuous film is achieved. The installation should be carried out by a Sterling Technotrade approved applicator with a documented quality assurance scheme.

Packaging

TechnoCoat® Novolac HS is supplied in 18 kg composite packs including colour component. Packaging size may vary subject to local regulations and requirements.

Shelf Life & Storage

24 months from date of production if kept in undamaged and unopened original sealed containers and store at protected area from direct sunshine in dry and cool condition at temperatures between 10°C-30°C.

Cleaning

Tools and equipment should be cleaned with TechnoFix® Eco Cleaner immediately after use. Cured material can only be removed mechanically. Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.

Products Included in this System

TechnoCoat® Novolac HS Composite (incorporated into build up systems of 3mm and above). For actual coverage rates, refer to the appropriate project specification. Detailed application instructions are available upon request.

Limitations

TechnoCoat® Novolac HS should not be applied on to surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Hammond concrete/mortar moisture tester.

Sterling Technotrade does not recommend acid etching as a method of floor preparation. If used, the method should be approved by the project consultant. In common with all epoxy materials, some slight shade changes may be experienced over the long term when placed in adverse exposure conditions. Any such change in shade is not regarded as being detrimental to performance.

Antislip application

If a slip resistant texture is required, the base coat shall be applied as per the standard application, but at a minimum film thickness of 550 microns. The base coat should then be dressed with the chosen TechnoFloor®SRA -Antislip Grain. This should be done as soon as possible after laying. The recommended procedure is to completely blind the base coat i.e. apply excess dressing aggregate to completely obliterate the base coating. Alternatively, the TechnoFloor®SRA- Antislip Grains can be broadcast in a light random dressing to provide a less dense finish. When the base coat has reached initial cure (12 hours @ 20°C or 5 hours at 35°C), the excess aggregate should be vacuum cleaned from the surface. The top coat can now be applied by medium haired roller as per desire thickness minimum at a rate of 2.0m² /kg. Care should be taken to ensure that a continuous film is achieved and the rough surface, caused by the aggregate, is completely sealed. This top coat must be applied within 36 hours @ 20°C (15 hours @ 35°C) of the application of the first coat.

Technical support

Sterling Technotrade offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer onsite technical assistance and dedicated specification assistance for the specific projects and locations.

Typical Properties at 25°C

Pot life	30 mins @ 25°C	20 mins @ 30°C
Cure time	24 hours	18 hours
Maximum time between coats	36 hours	15 hours
Light traffic use after	72 hours	48 hours
Full traffic use after	7 days	7 days
Chemical Base	Polyurethane resin and hardener	
Resistance to chemical spillage	7 days	
Compressive strength	> 60 N/mm ² (BS6319)	
Flexural strength	> 20 MPa	
Tensile Strength, BS6319-7	9 MPa	
Water absorption (ASTM C413)	<0.13%	
Shore D Hardness (28d)	>70	
Fire Resistance	BS476:Part:7: Surface spread of flame: Class1	
Bond Strength ASTM D4541	> 2 MPa (concrete failure)	
Application temperature range	+15 to +30°C	

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Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd - The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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Health and Safety instructions

Some people are sensitive to resins so gloves and a barrier cream should be used when handling TechnoCoat® Novolac HS. If contact with the resin occurs, it must be removed, before it hardens, with a resin removing cream. Follow by washing with soap and water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately.

Ensure adequate ventilation in volume and pattern in working area and do not smoke during use. Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals. Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment.

Product only for professional use.