Techno Floor MT 140

High performance polyurethane epoxy resin floor coating

Uses

To provide a hard wearing, easily cleaned, attractive floor coating in areas where high resistance to chemical attack is required. It is suitable for use in production assembly areas, workshops, dairies, soft drinks production and bottling plants, kitchens, showrooms etc.

It is particularly suitable in wet working areas and where chemical spillage is likely, e.g. plating shops, processing plants, dye works etc. It can also be used as a final coating and sealer for epoxy floor screeds to provide more durable and easily cleaned surface where high impact is desirable.

Advantages

Hard wearing - durable, low maintenance costs
High resistance to a wide range of industrial chemicals
Hygienic - impervious finish provides easily cleaned surface
Attractive - available in a range of colors to improve the working environment

Description

Techno Floor MT 140 is a two-component **polyurethane** based, epoxy resin coating system supplied in pre-weighed packs ready for on-site mixing and use. The cured film forms a hard but flexible coating with excellent adhesion to clean concrete, sand/cement and granolithic screeds, and certain metal surfaces. It cures to a semi-gloss, impervious finish which is easily cleaned.

The product is available in a range of standard colors and is also available in a clear grade.

Design criteria

Techno Floor MT140 is designed for application in two coats to achieve
a total dry film thickness of 90 microns. Substrates should be dry and not suffer, or be likely to suffer, from rising damp. Substrates should not have a relative humidity greater than 75% at the time of installation.

Properties

The values given below are average figures achieved in laboratory tests at 20°C and 35PC. Actual values obtained on site may show minor variations from those quoted.

	@ 20°C	@ 35°C
Pot life	4hrs	1.5 hrs
Tack free time	4-6 hrs	2-4 hrs
Time between coats	6-24 hrs	4-16 hrs
Initial hardness:	24 hrs	18 hrs
Full cure	7 days	5 days

Note: After the pot life has expired, the material, although not hardened, increases in viscosity and the characteristics of the product change. Excess material should be discarded after this point.
Chemical properties, Techno Floor MT 140 are resistant to a wide range of chemicals. Few of them are listed below. Specific data will be available upon request.

Citric Acid (10%)	Resistant
Hydrochloric Acid (10%)	Resistant
Lactic Acid (10%)	Resistant
Sulphuric Acid (10%)	Resistant

Good housekeeping is essential in areas where chemical spillage is likely to occur.
It is especially important that such spillage should not be allowed to dry since very much higher concentrations of chemicals will then result. Specification Epoxy floor coating The floor coating shall be Techno Floor MT 140 a two component solvent based epoxy suitable for application by spray, brush or lambs wool roller. The coating shall be applied in two coats to achieve a total dry film thickness of 90 microns (WFT. 100 microns/ Coat).

Instructions for use
Surface preparation
It is essential that Techno Floor MT 140 is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the floor coating and substrate. Because Techno Floor MT140 is a relatively thin coating, the substrate must be fine textured. Any surface irregularities may show through causing excessive wear on high spots and changing the perceived color of the coating.
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. Excessive laitance can be removed by the use of mechanical methods. Dust and other debris should then be removed by vacuum cleaning.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. As for new concrete floors dry removal of laitance by use of mechanical methods is preferable. Oil and grease penetration should be removed by the use of a proprietary chemical degreaser or by hot compressed air treatment. Any damaged areas or surface Irregularities should repaired using an epoxy putty.

Steel substrates

Steel substrates should be grit blasted to surface quality SA 21/2(BS 4232: Second Quality) and primed with a single coat of Techno prime Epoxy screeds

Techno Floor MT 150 can be applied to M.T.C. epoxy resin screeds. High spots or trowel marks should be rubbed down and dust and other debris removed by vacuum cleaning.

Mixing

The base and hardener components of Techno Floor MT140 should be thoroughly stirred before the two are mixed together. The entire contents of the hardener container should be poured into the base container and the two materials mixed thoroughly.

Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

Application

The mixed Techno Floor MT 140 should be applied to the prepared surface using airless spray, brush or lambs wool roller. Ensure that the area is completely Coated The second coat may be applied as soon as the first coat has initially dried (typically 12 to 18 Hours). The time will be dependent on the type of surface and the ambient conditions.

Maintenance

The service life of a floor can be considerably extended by good housekeeping practices. Regular cleaning of Techno Floor MT 140 may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures

up to 50°C.

Cleaning

Techno Floor MT 140 should be removed from tools and equipment with Techno solvent 102 immediately after use. Hardened material can only be removed mechanically.

Limitations

Techno Floor MT140 should not be applied onto surfaces known to or are likely to suffer from rising dampness or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A

- The durability of Techno Floor MT 140 in foot traffic areas is reduced in areas of very heavy traffic such as around work benches, drinks machines etc. It is advisable to either:-

A) Specify additional coats in such areas.

B) Specify a higher build system such as Techno Floor MT 140

- Techno Floor MT 140 should not be applied to asphalt floors or PVC tiles or sheet.

- 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.

- Techno Floor MT 140 should not be installed at temperatures below 5°C.

Supply

Techno Floor MT 140	2.5 kg packs
Techno Epoxy Zinc	0.9 kg packs
Techno solvent 102	4 liter tins

Coverage

Techno Floor MT 140	4 to 6 m^2/kg per coat (2 coats application recommended)
Techno Epoxy 151 P	3 to 4 m^2/pack

Note: Coverage figures given are theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced, this will vary with site and application conditions**.**

Storage

Shelf life

Techno Floor MT 140 and Techno solvent have a shelf life of 12 months if kept in a dry store between 5°C and 30°C in the original, unopened packs.

Fire

Techno Floor MT 140 and Techno solvent are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with $C0^2$or foam. Do not use a water jet.

Flash points

Techno Floor MT 140	23°C.
Techno solvent 102	33°C.