HYCHEM SL20

Premium, self-levelling epoxy topping

DATA SHEET

HYCHEM
EPOXY SYSTEMS

HYCHEM SL20 is a 100% solids, self-levelling epoxy flooring system. It is impervious and designed to provide an easy clean, hygienic, smooth seamless floor. SL20 has high mechanical strength and excellent chemical resistance.

USE

It is recommended for use as a heavy duty floor topping (2-4 mm) system for protection of concrete floor surface subject to heavy loads, chemical attacks and where maintenance of a clean, hard, smooth floor finish is important.

TYPICAL APPLICATIONS

- Pharmaceutical manufacturing plants
- Electronic assembly plants
- Hospitals
- Warehouse / Logistics centres
- TV studios
- Laboratories Retail showrooms

FEATURES AND BENEFITS

- Chemical resistant – resists dilute acids and alkalis, aliphatic solvents and commercial cleaning agents
- Oil resistant – withstands vegetable oils and animal fats.
- Abrasion/impact resistant – hard wearing and durable.
- High strength – 95 MPa compressive strength.
- Highly flowable – will self-level to a flat finish. Smooth/glossy finish – easy to clean and maintain. Excellent adhesion to concrete and most other coating or topping systems. Low/no odour – does not taint food. Non-flammable – no fire hazard.

PHYSICAL PROPERTIES

Solids content	100%
Pot life	25 Mins
Mix ratio by volume	2 : 1 (Resin: hardener)
Tack free time	8 hrs
Cure time	Foot traffic – 24 hrs; full cure – 7 days
Compressive strength	95 Mpa
Hardness	75 Shore d
Early water resistance	24 hrs
Recommended thickness	2 to 4 mm

CHEMICAL RESISTANCE @ 25°C HIGHLY RESISTANT EVEN IN CONSTANT EXPOSURE SITUATIONS

ACIDS		ALKALIS		OILS	MISCELLANEOUS	SOLVENTS
Acetic	10%	Ammonium	20%	Crude oil	Antifreeze	Toluene
Citric	5%	Potassium	20%	Mineral oils	Brake fluid	Turpentine
Hydrochloric	20%	Sodium hydroxide	20%	Motor oil	Gasoline	White spirit
Nitric	10%			Vegetable oils	Jet fuel	Xylene
Phosphoric	20%			Fats	Skydrol	
Sulphuric	70%					

APPLICATION GUIDELINES

Surface preparation

- Concrete substrate shall be firm, clean and dry with a compressive strength of 25 MPa and surface tensile strength of 1.5 MPa minimum.
- New concrete must be allowed to cure for a minimum of 28 days.
- Repair imperfections (holes and cracks) with an epoxy patching compound such as Hychem GP where necessary.
- Remove surface laitance, contaminants, coating, curing compound and all weak and loose materials.
- Prepare concrete surface by Diamond Grinding, Scarifying or Captive Shot Blasting to provide the appropriate surface profile for optimum mechanical keying.
- Where the surface is quite uneven, apply a skim coat of Hychem GP slurry for cost effectiveness in rectifying the sub-floor and to achieve the desired quality finish.

Priming

- The prepared surface must be primed with Hychem GP at a rate of 4 to 6 sqm/litre to ensure that no air holes remain. Highly porous surface should be doubled primed.
- Allow Hychem GP to cure for 12 to 16 hours but not more than 24 hours otherwise re-priming will be required.

Mixing

- Mix Hychem SL20 liquid components (Resin and Hardener) together using a helical mixer at a speed of 500 rpm until the mix becomes homogeneous (1 to 2 minutes should be sufficient).
- Product must be mixed slowly to avoid aerating.
- Add 12 kg of Silica 60G (or equivalent) to the 12 litres of SL20. Mix slowly until a smooth uniform consistency is achieved. Move the mixer around from side to side and top to bottom and scrap the sides of the mixing vessel to ensure thorough mixing.
- In colder weather it may be beneficial to reduce the amount of aggregate but consult a Hychem representative first.

Applying

- Pour the wet mix on the floor. Spread over the floor area using a pin rake or notched trowel set at a pre-determined thickness.
- Ensure to maintain continuity of wet material between pours.
- Roll the surface with a spike roller to remove entrapped air.
- Allow to cure for 24 hours before exposing to foot traffic.
- If a non-slip finish is required, apply a coat of Hychem SF20FG. Allow to cure for 12 to 16 hours before exposing to foot traffic.

Clean up

Xylene can be used for cleaning tools and equipment before the mixed compound begins to harden.

SAFETY PRECAUTIONS

- Wear gloves, eye protection and overalls during mixing and application.
- Ensure there is adequate ventilation and avoid breathing the vapour.

PACKAGING

Neutral	
Kit size	**Colour Packs Required**
11.25 Lt	1 x 0.75 Lt
Colour	
Kit size	**Colour Packs Required**
12 Lt	N/A

Silica 60 G is supplied in 25 Kg bag.

COVERAGE

The 12 litre kit when combined with 12 kg Silica 60G will yield approximately 16.5 Litres.

This will give a coverage of 5.5 sqm/lt at 3mm thick.

SHELF LIFE

12 months from date of manufacture, stored under shelter at 25ºC in original un-opened container.

WARNING – ENVIRONMENTAL CONDITIONS

Epoxy products are sensitive to the prevailing temperature and humidity at the time of application.

- High temperatures will shorten the pot life and application may become difficult due to insufficient time being available to lay the product.
- Low temperatures and high humidity will result in the epoxy reacting with moisture to produce a white powdery finish. The tendency to surface whiten depends on the hardener being used and is a common ocurrence at temperatures below 16 degC. The use of epoxy coatings below 10 degC is not recommended as this blooming effect can generally not be prevented at temperatures below this point.
- The white surface finish does not affect the structural strength and on site performance but can affect the adhesion of further surface coats.
- Chemical spillage of acids and sanitizing agents may attack the pigments used in the coating and result in discolouration.
- Differing epoxy products have differing resistance to chemicals, always ensure that the correct product is chosen for the service environment to be encountered.

Field support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by HYCHEM either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not HYCHEM are responsible for carrying out procedures appropriate to a specific application.

Customer responsibility

The technical information and application advice given in this publication is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the product suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

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Head Office
3/19 Burns Road, Heathcote NSW 2233
T 02 9548 2186 **F** 02 9520 2522 **E** admin@hychem.com.au **W** www.hychem.com.au