

HYCHEM SUPAFLOOR

Multi-purpose epoxy flooring system – 100% solids

* HACCP Australia & Green Star Certified



HYCHEM
EPOXY SYSTEMS

Hychem SupaFloor is a multi-purpose, solventless epoxy flooring product designed to be used as either a smooth roller-applied coating, a smooth glossy self-smoothing floor topping or as a self-smoothing base to be broadcast with selected aggregates and sealed with a coat of itself.

For increased anti-slip, SupaFloor can be used in conjunction with quartz sand, bauxite or aluminium oxide to produce a range of anti-slip finishes that conform to the Australian Standards SA HB 198/2014 slip resistance to pedestrian surfaces guidelines.

USE

SupaFloor is recommended for use as a medium and heavy duty floor coating or topping for industrial and commercial applications.

TYPICAL APPLICATIONS

- Schools, hospitals and public buildings
- Prisons
- Retail areas
- Domestic and commercial garages
- Back of house areas
- Stock & Plant rooms
- Workshops
- Pharmaceutical Industry
- Laboratories
- Food and beverage Industry

FEATURES AND BENEFITS

- Smooth, high gloss finish
- Anti-slip applications possible
- High resistance to mineral acids
- High resistance to caustic and salt solutions
- High resistance to petroleum oils
- Versatile
- Abrasion and impact resistant
- High mechanical strength
- Non flammable
- Cures rapidly
- Seamless
- Excellent resistance to early water spotting
- Fast curing hardener available*

TECHNICAL PROPERTIES @ 25°C - (STANDARD HARDENER)

Pot life	20 minutes
Tack free time	8 hours
Recoat time	8 – 24 hours
Application temperature	10 – 30°C
Cure time	24 hours – foot traffic 3 days – light mechanical traffic 7 days – full cure
Hardness Shore D – 7 days	78
Compressive strength	75 MPa

APPLICATION GUIDELINES

Surface Preparation

Prior to the application of SupaFloor, the substrate must be thoroughly prepared.

- The concrete substrate must be firm, clean and dry with a minimum compressive strength of 25 MPa and a minimum surface tensile strength of 1.5 MPa.
- New concrete must be allowed to cure for a minimum of 28 days.
- Remove all surface laitance, contaminants, existing coatings, curing compounds and any weak or loose materials.
- Prepare the concrete surface by Grinding, Shot Blasting, Scarifying, Ultra High Pressure Water Jetting or Scabbling to provide the appropriate concrete surface profile (CSP) for optimum mechanical keying.
- The extent of surface preparation required is dependant upon but not limited to the thickness of the coating system to be applied. It is highly recommended that all surface preparation is carried out in accordance with industry standards and publications such as NACE 02203 item No. 22420 or ICRI Technical Guideline No. 03732.

Pre-conditioning product

It is important to note that even when the application environment is warm, products which have been stored in cold or cooler conditions should always be pre-conditioned ideally to 20-25°C to ease mixing, application and help avoid other potential issues such as amine bloom or blushing.

Applying a cold product in a warm environment is not recommended.

Application

The moisture content of the concrete must be below 6%.

Mix only enough quantity that can be applied within the work life which is temperature dependent.

Prior to the application of SupaFloor it is recommended to prime all new floor surfaces with either E100 or GPT.

If applying SupaFloor as a self-smoothing topping then a prime coat of E100 followed by a skim/filler coat of GPT or SupaFloor with reduced fillers is recommended.

If in doubt consult the Hychem technical department for advice.

Roller Application

1. Add pigment pack to part A resin and mix thoroughly with a low speed mechanical stirrer until complete uniformity is achieved. Add part B hardener and again mix until uniform. This should be achieved in approximately 3 minutes.
2. Apply the mixed product at a rate of approximately 6-8m²/litre/coat. If applying over an anti-slip base layer where the base has been broadcast with an aggregate, the consumption will increase to approximately 2-3m²/litre but this will obviously vary depending on the size of aggregate used.
3. To assist workability under certain conditions SupaFloor can be diluted using Xylene at a maximum rate of 10% by volume where necessary. Please note this may affect pot life and cure times slightly.

Self-smoothing floor topping

1. Mix Part A resin, Part B hardener and the pigment together for 1 minute before adding all or part of the ESL fillers supplied depending on the application temperature and the thickness required. Continue mixing slowly minimising the incorporation of air for a further 2 minutes until a uniform consistency has been achieved. Where the application requires multiple mixes each mix should be timed so that no variations exist.
2. Avoid mixing more than one kit at a time due to the potential for increased exotherm due to greater product volume.
3. NOTE: Avoid using the XE40 rapid hardener for self-smoothing finishes due to the potential for air entrapment due to increased cure speed.
4. Pour the mix onto the primed and fully sealed substrate and spread with a flat or notched trowel or pin rake. Ensure the material is spread evenly and to the required thickness. Roll with a spiked roller to eliminate air bubbles.

Heavy duty slip resistant topping

1. Apply as for self-smoothing floor topping.
2. For sloping floors, additional aggregate may be required to reduce the flow of the product.
3. Broadcast selected aggregate to refusal into the un-cured material.
4. Allow to cure and vacuum off loose aggregate.
5. Apply SupaFloor as for roller application.

MIXING RATIOS

Part A Resin	14 kg Neutral or 8.7 L
Pigment (weight will vary with colour)	1 L
Part B Hardener	4.2 kg or 4 L
ESL Filler	up to 15 kg (if applying as a self-smoothing topping)

PACKAGING

SupaFloor Neutral 18.2 kg kit.

This kit will yield approximately:

- 13.7 litres as roll coat (with 1 litre pigment pack)
- 19.4 litres as self-smoothing (with pigment and full 15kg filler)

* Also available in a half size 9.1kg kit which yields 6.85 litres as a roll coat.

CONSUMPTION RATES

1 x large kit (18.2 kg) of SupaFloor will cover approximately:

Rollcoat	68m ² per coat over unsealed concrete 96m ² over sealed 25 - 40m ² over slip-resistant broadcast
Self-smoothing	1 litre = 1 mm coverage over 1m ² Apply 2-3 mm thick so at 2 mm thick = 9.7m ² per kit

Please note that due to variations in application conditions and topping thicknesses it is often necessary to adjust the amount of fillers being used to ensure a high quality finish.

If in doubt consult the Hychem technical department for advice.

SAFETY PRECAUTIONS

Wear appropriate personal protection equipment. Gloves, eye protection, mask and overalls should be used during mixing and application.

SHELF LIFE

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

CHEMICAL RESISTANCE

Different epoxy products vary in their resistance to chemicals. Always ensure that the correct product is chosen for the service environment to be encountered. If in doubt contact your Hychem representative or the Hychem technical department for advice. Chemical spillage of acids and sanitizing agents may attack the pigments used in the coating and result in discolouration.

COLOUR

SupaFloor is an industrial flooring finish which may discolour on exposure to UV light from the sun or an artificial source. The severity of discolouration is dependant on colour choice. Any such discolouration has no effect on the performance of the product.

* FAST CURE OPTION

A fast curing hardener may be used with SupaFloor which will reduce the cure time to approximately half the standard system. Note though, XE40 Hardener may not necessarily give the same gloss/finish as the conventional SupaFloor hardener.

CURE TIMES @ 25°C USING XE40 RAPID HARDENER

Pot life	15 minutes
Tack free time	3 hours (approximately)
Recoat time	3 - 24 hours (approximately)
Cure time	6 hours - light foot traffic 24 hours - light mechanical traffic 7 days - full cure



MIXING RATIOS – USING XE40 HARDENER

Part A Resin	14 kg Neutral or 8.7 L
Pigment (weight will vary with colour)	or 1 L
XE40 Hardener	3.4 kg or 3.40 L
ESL Filler	15 kg (when used as a base layer)

* Avoid using XE40 hardener for self-smoothing finishes

See XE40 Technical Data Sheet for further information.

WARNING – ENVIRONMENTAL CONDITIONS

Temperature and the surrounding atmospheric conditions will play a part in the curing process of all epoxy products. Under conditions of low temperatures and high humidity the final cured surface finish can be adversely affected potentially resulting in poor gloss retention, discolouration over time, poor overcoatability and intercoat adhesion. Quite often these conditions will result in the formation of a white film over the surface often evident after contact with water. This chemical reaction with the atmosphere is commonly referred to as “amine bloom” or “amine blush”.

If this occurs then the existing coating will need to be abraded to completely remove the affected surface to ensure the adhesion of subsequent applications. In some cases partial or complete re-priming may be necessary.

Attention also needs to be paid to the substrate temperature which should be at least 3°C and preferably 5°C above the dew point during the curing phase.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates and environmental conditions including substrate and air temperatures, humidity levels and dew point readings during both the application and curing processes. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

If in doubt consult the Hychem technical department for advice.

NOTE: Customer responsibility

The technical information and application advice given here 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 products 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.

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.

If unsure contact Hychem for further technical advice before proceeding.



HYCHEM
EPOXY SYSTEMS

Head Office

Unit 1, 30 Bluett Drive, Smeaton Grange NSW 2567
T 02 4646 1660 F 02 4647 3700 E admin@hychem.com.au W www.hychem.com.au

ISSUE NUMBER 060416