

Hychem SupaFloor

Multi-Purpose Pigmented Epoxy Flooring System

DATA SHEET



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.

Where there is a requirement for increased slip resistance, SupaFloor can be used in conjunction with quartz sand, bauxite or aluminium oxide to produce surfaces compliant with slip/friction specifications.

USE

SupaFloor is recommended for use as a medium & 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
- 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
- Low odour
- Non flammable
- Cures rapidly
- Seamless
- Excellent resistance to water

TECHNICAL PROPERTIES (25°C)

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

Substrate Preparation

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

- The concrete substrate must be firm, clean and dry with a 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 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.

Applying

Moisture content of the concrete must be below 6%

Prior to the application of SupaFloor, prime the concrete with E100. If applying SupaFloor as a self-smoothing topping then 2 coats of E100 primer or similar is recommended.

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 5-7 m²/litre. If applying over an anti-slip base layer where the base has been broadcast with an aggregate, the consumption will increase to approximately 2-3 m²/litre but does depend on the size of aggregate.

Application guidelines continued...

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. Pour the mix onto the double primed 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. Broadcast selected aggregate to refusal into the un-cured material.
3. Allow to cure and vacuum off loose aggregate.
4. Apply SupaFloor as for roller application.

MIXING RATIOS

Part A Resin	14 kg	or	8.7 L
Pigment weight varies with colour	or		1 L
Part B Hardener	4.2 kg	or	4 L
ESL Filler	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 L pigment pack)
19.4 Litres	as self-smoothing	(with pigment and 15 kg filler)

CONSUMPTION RATES

1 Kit of SupaFloor will cover approximately:

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

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.

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.

To minimise an unsatisfactory cure the following indicative application conditions should be observed with respect to temperature and humidity levels.

21° C and less than 85% humidity

10° C and less than 75% humidity

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

Industry standards recommend the accurate recording of environmental conditions such as substrate & air temperatures, humidity levels and dew point readings during both the application & 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.

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.

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.