



SF12 Ultra DATA SHEET

FAST CURING, HIGH CHEMICAL RESISTANCE EPOXY COATING

DESCRIPTION

HYCHEM SF12 Ultra is a 100% solids, premium epoxy coating. It provides very fast cure and excellent chemical resistance. It is formulated for use where conventional epoxy systems have reached their limit of serviceability with respect to chemical resistance and cure time.

USE

It is recommended for use as a heavy duty, high performance coating for the protection of concrete floor surfaces subject to regular chemical exposure. It can be incorporated with an anti-slip finish to make it particularly ideal for use in wet production areas.

HYCHEM SF12 Ultra is preferred over Methyl Methacrylate systems where odour and exposure to fats and solvents prevent the use of Methyl Methacrylate systems.

TYPICAL APPLICATIONS

- › Food & Beverage processing
- › Margarine & oil products manufacturing
- › Dairy production
- › Abattoirs, poultry processing & smallgoods
- › Printing houses
- › Commercial kitchens & bars

FEATURES & BENEFITS

- › Fast curing – withstands foot traffic in 6 hours.
- › Low temperature cure – will cure at 5°C.
- › Chemical resistant – resists alkalis, acids, aromatic solvents and commercial cleaning agents.
- › Oil resistant – withstands vegetable oils and hot animal fats.
- › Heat resistant – withstand 60°C long term exposure
- › Abrasion – hard wearing and durable.
- › Good adhesion to concrete and most other sand seeded, textured topping and coating systems
- › Solventless – Low odour – does not taint food.
- › Non-flammable – no fire hazard.

PHYSICAL PROPERTIES (@ 25°C, 50 % RH)

- › **Solids Content:**
100%
- › **Pot Life:**
20 mins
- › **Mix Ratio by Volume:**
3 : 1 (Resin: Hardener)
- › **Tack Free Time:**
3 hrs
- › **Cure Time:**
Foot Traffic - 6hrs; Full Cure - 7 days
- › **Re-coat Time:**
4 hrs
- › **Heat Resistance:**
60°C
- › **Film Thickness Per Coat:**
125 – 250 microns
- › **Slip Resistance (ANZ4586:2004):**
R10 – R13 dependent on anti-slip

Chemical resistance @ 25°C Highly resistant even in constant exposure situations

Acids		Alkalis		Oils	Miscellaneous	Solvents
Acetic	15%	Ammonium	50%	Crude oil	Antifreeze	Toluene
Citric	5%	Potassium	50%	Mineral oils	Brake fluid	Turpentine
Hydrochloric	32%	Sodium hydroxide	50%	Motor oil	Gasoline	White spirit
Nitric	10%	Sodium	12%	Vegetable oils	Jet fuel	Xylene
Phosphoric	20%			Hot fats	Skydrol	Alcohol
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, coatings, curing compounds 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.
- › For an existing topping, ensure surface is clean. Roughen the cleaned surface lightly using a Diamond Grinder.

Priming

- › Priming is generally not required.
- › Where necessary (e.g. for porous surface), prime with Hychem GP epoxy.

Mixing

Important – Do not mix more than can be adequately applied in 10 to 15 minutes.

- › For Hychem SF12 Ultra Neutral, add colour pigment into the Component A (Resin) and mix until homogeneous using a helical mixer at a speed of 500 rpm.
- › Mix Hychem SF12 Ultra liquid components (Resin and Hardener) together using a helical mixer at a speed of 500 rpm until the mix becomes homogeneous (approx. 2 minutes)
- › Move the mixer around from side to side and top to bottom and scrap the sides of the mixing vessel

Applying

Smooth Finish

- Apply First Coat of Hychem SF12 Ultra using a medium nap roller at a coverage rate of approx. 6 m² per litre. The first coat can be diluted 10% with epoxy solvent for greater penetration and adhesion.
- Apply Second Coat of Hychem SF12 Ultra at a coverage rate of approx. 6 to 8 m² per litre.

Non-Slip Finish

- Apply as above. Broadcast grit aggregate (size to suit anti-slip requirement) into the first coat while it is still wet and allow to cure overnight.
- Sweep off loose aggregate.
- Apply second coat of Hychem SF12 Ultra to seal the surface.
- Slip resistance is dependent on the size (grading) of aggregates used:
 - 80 mesh Alumina ----- R 11
 - 36 mesh Alumina ----- R 12
 - 24 mesh Alumina ----- R 13

Overcoating

If Hychem SF12 Ultra is to be used as a seal coat, it is important that the topping should be seeded lightly with quartz or alumina aggregate before the topping surface has fully cured.

Colour and Finish

- Hychem SF12 Ultra colour may fade with time and exposure to UV light.
- Exposure to water at an early stage (less than 6 hours cure) or application on days of greater than 80% relative humidity can lead to a whitening of the surface.

Such whitening does not affect the performance of the product.

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
7.25 Lt	1 x 0.75 Lt

Colour

Kit size	Colour Packs Required
8 Lt	N/A
80 Lt	N/A

Also available in Neutral with separate colour pack.

COVERAGE

1st Coat - approx. 6 sqm/litre

2nd Coat - approx. 7 sqm/litre

An 8 litre kit will cover approx. 25 sqm in 2 coats.

SHELF LIFE

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

DISCLAIMER

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

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