HYCHEM 100W

Clear, polyurethane modified, water-based epoxy coating

DATA SHEET

HYCHEM
EPOXY SYSTEMS

Hychem 100W is a high performance sealer offering increased durability and stain resistance over older type solvent based acrylic sealers. The low VOC rating allows Hychem 100W to be used in areas where solvent based sealers are prohibited due to odour, health and flammability issues. Hychem 100W meets the standard of the Green Building Council of Australia.

USE

Hychem 100W has 6 areas of primary use:

- Sealing car park floors against dusting and oil staining
- Sealing decorative exposed aggregate floors in shopping centres and commercial premises
- Sealing cementitous self levelling toppings
- Sealing concrete floors in back of house retail centres and sports complexes
- Sealing concrete walls in buildings against dirt and dust build up
- Sealing floors in factories and warehouses to prevent dusting and staining

FEATURES AND BENEFITS

- 50% higher solids content than solvent based acrylic sealers
- 2 Part chemically cured film
- Chemically resistant, unaffected by hydraulic fluid, grease, petrol and lubricants
- Scrub resistant, can be cleaned with automatic mobile scrubbing machines
- Low VOC Emission – complies with Green Star requirements
- High film build, lasts up to 5 times longer than lower performance sealers
- Reduces cleaning and lighting costs
- Easy application by low pressure spray or roller
- Saves line marking costs, lines and safety markings last longer
- Solvent free, can be used on asphaltic surfaces as well as concrete
- Can be diluted by up to 25% with water
- Saves maintenance costs by extending service life of line marking

PHYSICAL PROPERTIES @ 25°C

Pot life	45 minutes
Mix ratio by volume (Resin:Hardener)	1:3
Tack free time	12 hours
Full cure time	7 days
Abrasion resistance (1kg load, H022 wheel)	20 mg/sqm/1000 rev
Slip resistance (AS4586:2004)	Class W
UV resistance	Good
Weathering resistance	Good

APPLICATION GUIDELINES

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.

Surface Preparation

Prior to the application, 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.

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.

Mixing

Empty contents of Component A (Base Resin) into Component B (Hardener) and mix thoroughly. Add 25% water to the mixed materials and mix thoroughly.

Please Note: All mixed material must be used within the pot life, discard any material unused after that time, even though it still looks usable. Use of out of pot life material will result in a film which is not waterproof, abrasion or chemical resistant.

Application

Hychem 100W can be applied by roller, low pressure or airless spray. Two coats of the water diluted material are highly recommended. Two coat application will provide a dry film thickness of approximately 60 microns.

Hychem 100W contains water which needs to evaporate from the film to ensure a film-forming chemical reaction. Good airflow is very important as the ambient air can easily become saturated with moisture due to the evaporating water, particularly in closed rooms. As an example, in a room with 3 metre high ceilings and applying Hychem 120 with 1:1 water dilution, the air would need to be changed approximately 8 times if ambient conditions were 20°C and 60% relative humidity.

If the relative humidity is not kept low enough then the film formed may be tacky, have low gloss and may lack clarity.

COVERAGE

- First coat: 6–8 sqm/litre.
- Second coat: 10–14 sqm/litre.

SAFETY PRECAUTIONS

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

PACKAGING

Available in 16 litre and 80 litre packs

SHELF LIFE

12 months from date of manufacture, stored under shelter at 25°C in 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.

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.

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