



HYCHEM
EPOXY SYSTEMS

HYCHEM WE70

Clear, water-based epoxy primer and sealer,
excellent adhesion to green concrete

HYCHEM WE70 is a clear, two-component, high solids water-based epoxy coating with very low odour and zero VOC (volatile organic compound). It offers excellent early water resistance, curing at low temperature (5°C) and excellent adhesion to 1 day old green concrete.

USE

It is recommended for use as a protective coating on concrete surface exposed to foot and light vehicular traffic. It is also recommended for use as an intermediate coat on green concrete to allow the installation of the required topping system without the normal wait for the 28 day curing.

FEATURES & BENEFITS

- Excellent adhesion to green concrete – can be used on 1 day old concrete
- Low temperature cure – can cure at temperatures as low as 5°C
- Fast drying and true cure – compared to traditional water-based epoxy systems
- High tolerance to humidity – can be used at up to 85% relative humidity
- Very good early water resistance – can be exposed to water after 24 hours
- High solids–higher DFT compared to the traditional water-based epoxy coating
- Zero VOC Emission – complies with stringent Green Star requirements
- High permeability – higher water vapour permeability than conventional epoxies
- UV resistance – very good UV resistance
- Low/no odour – does not taint food
- Water-based – non-flammable, non-toxic and environmentally friendly
- Can be used as a primer for other water based coatings

TYPICAL APPLICATIONS

- Schools and Institutions
- Car park
- Back of house areas
- Stock and plant rooms
- Workshops

PHYSICAL PROPERTIES @ 25°C

Solids content	65%
Pot life	90 minutes
Mix ratio by volume (Resin:Hardener)	1:2
Tack free time	6 hours
Re-coat time	12 hours
Cure time	Foot traffic – 24 hours
Water spot resistance	24 hours

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

Acids	Alkalis	Oils	Miscellaneous	Solvents
Acetic 5%	Ammonium 20%	Crude	Antifreeze	Toluene
Citric 5%	Potassium 20%	Mineral	Brake fluid	Turpentine
Hydrochloric 20%	Sodium Hydroxide 20%	Motor	Gasoline	White Spirit
Nitric 10%		Vegetable	Jet fuel	Xylene
Phosphoric 10%			Skydrol	
Sulphuric 40%				

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 1 day.
- 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 water blasting or diamond grinding to provide the appropriate surface profile for optimum mechanical keying.

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

Do not mix Components A, B and water at the same time. Important to follow instruction strictly on the addition of water in mixing.

- Empty contents of Component A (Base Resin) into Component B (Hardener).
- Mix with a jiffy mixer at a speed of 500 rpm to avoid incorporating excessive air into the mix.
- Mix for 2 minutes, scrape down the sides of the mixing container and mix for another minute to ensure the mix is homogeneous.
- For use as the First Coat, while the mixer is running, add 9 litres of water at 3 separate intervals of 3 litres at a time. Mix until water is well mixed in between each interval of adding water. After the last addition of water, mix until homogeneous (approx. 2 minutes).
- For use as the Second Coat, while the mixer is running, add 6 litres of water at 2 separate intervals of 3 litres at a time. Mix until water is well mixed in between each interval of adding water. After the last addition of water, mix until homogeneous (approx. 2 minutes).

When WE70 is used as a primer it should be diluted 1:1 with water.

APPLYING

Smooth Finish

- Apply by brush, roller or airless spray at a rate of 10 to 12 m² per litre.

Non-Slip Finish

- Apply as above. Broadcast grit aggregate (size to suit anti-slip requirement) into the wet surface and allow to cure overnight.
- Sweep off loose aggregate.
- Apply second coat of Hychem WE70 to seal the surface.

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

Non-Pigmented

KIT SIZE	NO. OF COLOUR PACK REQUIRED
9 Litre	N/A Prepigmented
60 Litre	N/A Prepigmented

COVERAGE

10 to 12 sqm/ltr depending on the porosity and texture of the surface.

SHELF LIFE

12 months from date of manufacture when stored under shelter at 25°C and 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.

