

HYCHEM E100

DATA SHEET



HYCHEM
EPOXY SYSTEMS

Hychem E100 is a solvent based, two-component epoxy primer.

USE

E100 is generally used to prime concrete surfaces prior to the application of the main coating products or systems. Areas to be coated with epoxy topcoats, membranes and joint sealants can be treated with E100. E100 can also be used to prime for application of polyurethane and polyurea coatings as well as sealing concrete prior to vinyl, parquetry and carpet laying. It has good penetration into the substrate with moderate curing times.

FEATURES AND BENEFITS

- Good penetration
- May be diluted
- Good curing properties
- Suitable for a range of applications and coatings

TYPICAL APPLICATIONS

- Motor workshops
- Aircraft hangars
- Warehouses
- Back of house areas
- Stock and plant rooms

CHEMICAL RESISTANCE

Acids	Alkalis	Solvents	Oils	Mechanical Fluids
Hydrochloric 10%	Ammonium Hydroxide 20%	Toluene	Crude	Skydrol
Nitric 10%	Sodium Hydroxide 20%	Turpentine	Mineral	Brake Fluid
Sulphuric 10%	Potassium Hydroxide 20%	Xylene	Engine	Petrol
Phosphoric 10%	Bleach	White Spirit	Vegetable	Antifreeze

APPLICATION GUIDELINES

E100 is usually applied by roller.

Apply 1 coat at approximately 6-8m² per litre.

Temperature and the surrounding atmosphere play a part in the curing process of epoxy coatings. Under conditions of lower temperatures and higher humidity the final finish can be adversely affected resulting in low gloss or in more severe instances a white film over the surface after contact with water. Adhesion can also be affected.

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.

Approximate application data for 23°C and 75% relative humidity.

Mix ratio by volume (Resin: Hardener)	1:1
Pot life	20 minutes
Tack free time	6 hours
Recoat time	6-24 hours

Surface preparation

- Concrete substrate shall be firm, clean and dry with a compressive strength of 25 MPa and surface tensile strength of 1.5MPa 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, 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

- Mix with a jiffy mixer at a speed of 500rpm to avoid incorporating excessive air into the mix.
- Mix for 1 minute, scrape down the sides of the mixing container and mix for another minute to ensure the mix is homogeneous.

PACKAGING

8 Litre This kit will cover approximately 50m²
40 Litre This kit will cover approximately 250m²

SAFETY PRECAUTIONS

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

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.

