

PU100

Clear, water-based polyurethane coating

DATA SHEET



HYCHEM
EPOXY SYSTEMS

HYCHEM PU100 is a clear, two-component, water-based polyurethane sealer with good anti-slip properties. It is available in both a gloss and a low sheen finish.

USE

HYCHEM PU100 is used as a scratch resistant, clear, non-yellowing sealer for concrete surfaces to produce a variety of finishes from low sheen to high gloss.

The product is suitable for both indoors and outdoors and is generally used in conjunction with HYCHEM 100W as the surface primer.

HYCHEM PU100 is also used as a clear, UV stable surface sealer for pigmented HYCHEM WE 90 epoxy coating when used in external situations.

TYPICAL APPLICATIONS

- Retail shop floors and trade outlets
- Concrete floors in domestic premises
- Public areas of shopping centres
- Factory floors and warehouses
- Exposed aggregate floors
- Car parks and garages
- Exhibition centres, galleries and public halls
- Driveways, walkways, stairs and patios
- Final sealer for clear and pigmented epoxy finishes

FEATURES AND BENEFITS

- Excellent scratch and wear resistance - highly durable and long lasting
- UV resistance - will not yellow when exposed to direct sunlight
- Low / no odour - does not taint food
- Water-based - non-flammable and environmentally friendly
- Easy application - by roller or airless spray for fast installation

PHYSICAL PROPERTIES (@ 25°C, 50% RH)

Solids content (by weight)	40%
Pot life	2-3 hours
Cure time	Foot traffic - 24 hrs Full cure - 7 days
Recoat time	5-6 hours
Tack free time	24 hours
Touch dry	30 mins - 1 hour
Through dry time	7 days
Specific gravity	1.07 kg/ltr
Mix ratio by volume (Resin:Hardener):	4:1
Abrasion resistance (1 kg load, H022 wheel):	15 mg/sqm/1000 rev
Slip resistance (AS4586:2004)	Class W
UV resistance	Excellent

APPLICATION GUIDELINES

Surface preparation

Ensure that the surface has been primed with HYCHEM 100 as detailed in the HYCHEM 100 product data sheet.

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 Part A (Base Resin) into Part B (Hardener)
- Mix with a mechanical stirrer fitted to a drill until fully blended
- Add up to 15% water to thin coating a little
- Do not mix more than can be used within 1 hour

Applying

- HYCHEM PU100 can be applied by roller or airless spray. Two coats of HYCHEM PU100 are recommended, however one coat may be used on a pre-primed surface where cost pressures are the dominant issue and only light traffic is anticipated.
Note: HYCHEM PU100 trapped in holes will not cure and must be removed by brush or air blowing.
- HYCHEM PU100 must not be applied at a spread rate of more than 6 sqm/litre as improper cure and gas release can affect the coating. This means that the product cannot be used to seal a broadcast, coarse antislip coating. For antislip use only fine aggregate no larger than 80 microns.

SAFETY PRECAUTIONS

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

PACKAGING

Kit size	Colour Packs Required
5 kg kit	N/A
20 kg kit	N/A

COVERAGE

12-14 sqm/litre on a smooth impervious surface and up to 6 sqm/litre on a porous surface.

ENVIRONMENTAL CONDITIONS

HYCHEM PU100 must not be applied when relative humidity is above 80% or temperatures are below 10°C as the water in the product will not sufficiently evaporate before it has had a chance to crosslink.

When used outdoors, the applied film must be protected from rain for a minimum of 12 hours.

When used indoors ensure there is adequate ventilation, keep windows and doors open, use extraction fans when coating enclosed spaces.

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.