



Hychem TL6

MULTIPURPOSE WATER POTABLE AS/NZS 4020:2018 CERTIFIED EPOXY COATING.

Product Description

Multipurpose water potable AS/NZS 4020:2018 certified epoxy coating. Thixotropic, high-build, and pigmented. Hychem TL6 is a specialised water potable coating suited to a large range of applications. TL6 can be roller applied to vertical and horizontal substrates including concrete and steel. TL6 is a high-build, multipurpose, solventless epoxy coating exhibiting a chemically resistant high gloss stippled finish. Hychem TL6 is suited to water potable environments. It conforms to AS/NZS 4020:2018 testing of products for use in contact with drinking water.

Typical Applications

- Potable water storage tanks
- Silos, pipes, tunnels
- Reservoir coatings
- Dosing plants
- Sewer treatment assets
- Petroleum storage tanks
- Desalination plants
- Workshops
- Hydrocarbon storage
- Laboratories
- Food and beverage industry

Features & Benefit

- Certified to AS/NZS 4020:2018 for potable water use
- High resistance to hydraulic erosion
- Textured, high gloss finish
- Can be modified with the addition of aggregates to provide a variety of anti-slip textures
- High resistance to mineral acids
- High resistance to caustic and salt solutions
- High resistance to petroleum oils
- Abrasion and impact resistant
- High mechanical strength
- Non flammable
- Cures rapidly
- Seamless
- Excellent resistance to early water spotting

Technical Details

TECHNICAL PROPERTIES @25°C	
Pot life	20 minutes
Tack free time	8 hours
Re-coat time	8 – 24 hours
Application temperature	10 – 30°C
Cure time	24 hours – foot traffic 3 days – light mechanical traffic 7 days – full cure
Hardness Shore D – 7 days	78
Compressive strength	75 MPa



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Application Guidelines

Surface Preparation

Prior to the application of TL6, the substrate must be thoroughly prepared.

- The concrete substrate must be firm, clean and dry with a minimum 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 dependent upon but not limited to the thickness of the coating system to be applied. It is highly recommended that all 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.

Application

The moisture content of the concrete must be below 6%. Mix only enough quantity that can be applied within the work life which is temperature dependent. Prior to the application of TL6 it is preferable to prime all new floor and wall surfaces with either E500P or E300. In some cases, re-coating existing coatings in sound condition may not require priming but only after thorough preparation. For tilt panel or FC sheet surfaces, new concrete with blowholes or heavily damaged existing concrete, a render coat of E500T may be necessary. Application of E500T can also reduce out gassing phenomena. For application to steel and any other queries please contact Hychem technical department for advice.

Roller Application

1. Add pigment pack to part A resin and mix thoroughly with a low speed mechanical stirrer until complete uniformity is achieved. Add part B hardener and again mix until uniform. This should be achieved in approximately 3 minutes.
2. Apply the mixed product at a rate of approximately 5–7 m²/litre/ coat (flooring) and 6–8 m²/litre/coat for vertical applications over primed surfaces.
3. For anti-slip applications that require a more textured finish, add up to 10% white aluminium oxide aggregate by volume of the total mix. For coarse textured finishes, aggregate can be broadcast into the TL6. Please contact Hychem for a range of specific industry standard finishes.
4. To assist workability under certain conditions TL6 can be diluted using Xylene at a maximum rate of 10% by volume where necessary. Please note this may affect pot life and cure times slightly.

Mix Ratio

Part A Resin Neutral - 5.5 kg

Pigment (weight will vary with colour) - 500 mL

Part B Hardener - 2.1 kg

Packaging

TL6 Neutral 7.6 kg kit

This kit will yield 6.5 litres with a 500 mL pigment pack. Also available in a larger kit size. Please contact Hychem for further details.



Hychem TL6

Consumption Rates

1 x 6.5 litre kit of TL6 will cover approximately 40 m² as a floor coating and 50 m² as a vertical coating for walls. These consumption rates are theoretical and can vary due to the porosity and the profile of the surface being coated. Overall film thickness will also be determined by the type of application or specification. Please allow for wastage as well.

Chemical Resistance

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. For an ultra high-build epoxy system in a harsh H₂S environment consider the Hychem TL5 range.

Colour

TL6 is an industrial epoxy finish which may discolour on exposure to UV light from the sun or an artificial source. The severity of discolouration is dependent on colour choice. Any such discolouration has no effect on the performance of the product.

SHELF LIFE

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

Warranties and Disclaimers

Hychem warrants that this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper use and application of the product by the applicator. Hychem has no role in the application of the finished polymer other than to manufacture and supply its components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of spray equipment and application of sol-gel materials. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Hychem and executed under seal by a company officer.

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

The technical information and application advice given in this publication 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 product 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. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.