

Solvent free epoxy polyamine coating suitable for contact with potable water and food. Excellent gloss finish. High-build epoxy in a single coat.

WT: Water Tank

Description

TQ18 epoxy is a solvent-free two-component epoxy amine coating specially formulated for the protection of steel and concrete surfaces, in tanks, containers and pipes which are in direct contact with drinking water and solid food. It is also suitable for immersion in waste water, seawater, industrial water and for various chemical products.

TQ18 can be applied up to 750 microns in a single coat with excellent edge retention and vertices, providing the same protection over the entire surface by barrier effect.

Properties

- The cured coating forms an inert non- biodegradable coating in contact with drinking water and solid food.
- Provides high corrosion protection.
- High chemical resistance in different types of water, oils and various chemical products.
- Suitable for immersion temperatures up to 60 °C.
- Excellent hardness and abrasion resistance.
- Low odour and solvent-free.
- Gloss finish allowing easy cleaning.
- Excellent adhesion onto steel without the need of a primer.

Recommended uses

For the protection of steel and concrete surfaces that are submerged in water or in direct contact with food.

- Steel pipe lining.
- For tanks, pipes, fittings and steel surfaces in contact with potable water, raw water or sea water.
- Interior of silos or hoppers containing solid food, abrasive powder or grain cereals, sugar, salt, feed, etc.

Certifications

- **EU Regulation No. 10/2011** and **Royal Decree 847/2011** on the list of permitted substances for the manufacture of plastic materials and articles intended to be in contact with food
- **Royal Decree 140/2003** which establishes the health criteria for the quality of water destined for human consumption.
- Meets **ANSI - AWWA C210-07** standards for the coating of the inside of pipes.

Basic Characteristics

The following data was determined at 23 °C and 50% RH:

Colour:	Cream, white, red and brown
Finish:	Gloss
Volume solids:	100%
Density:	1.45 ± 0.05 g/ml
Recommended dry film thickness (dft):	min. 350 µm max. 600 µm
Theoretical spreading rate:	5,00 m ² /l (200 µm) 1,66 m ² /l (600 µm)
Dry to touch (400 µm)*:	3 hours
Fully dried (400 µm)*:	5 hours
Overcoat interval, min.*:	Not applicable
Overcoat interval, max*:	Not applicable
VOC content:	< 0 g/l (J Group Directive 2004/42/CE)
T ^a resistance (immersion in water):	< 60 °C (continuous)
T ^a resistance: (dry temperature):	< 200 °C (continuous)
Tensile adhesion (ASTM D4541)	> 8 MPa
Cross-cut adhesion (ASTM D3359):	> 4A

* Applied at temperatures of 45-50 °C for both components.

Data table for drying and curing times (400 µm dft) *

Substrate T ^a	10 °C	20 °C	30 °C	40 °C
Dry to handle	8 h	5 h	3 h	1'5 h
Fully cured	7 d	3 d	1 d	12 h
Repintabilidad	To ensure a good intercoat adhesion, it's required to roughen the surface of the previous coat by means of sweep blasting or abrading.			

d: days; h: hours; m: minutes

Pot-Life table

Room T ^a	10 °C	20 °C	30 °C	35 °C
Pot-Life	1h	40 m	20 m	-

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Surface preparation

- Steel surfaces: abrasive blast to a Near White Blast (Sa 2 ½ , SSPC-SP10; NACE 2) with a surface roughness equivalent to Rugotest N°3, BN11-BN10A or Rz 50 to 80 µm profile according to Keane Tator comparator or similar, obtained with the adequate form and granularity abrasive to reach the required profile.
- Concrete and masonry: remove traces of mortar and foreign materials. The surface must be free of grout, dust, dirt, releasing agents, moisture, residual cement and hardeners. For surface preparation, see SSPC-SP13 or NACE 6 Surface Preparation Concrete - 4.3.1 or 4.3.2. Previously apply recommended sealer (EP80).

Application directions

TQ18 is applied using a twin feed hot airless spray equipment at temperatures between 40-60°C for each component. Stationary measuring systems can be used in which for a fixed proportion of component A, a minimum dosing accuracy of component B of ± 4% is guaranteed. Mixture control is recommended using a gravimetric system and automatic pressure controllers.

- Adjust viscosity, if necessary, only with non- denatured ethyl alcohol (from fermentation).
- Provide adequate ventilation during application, and in particular in enclosed spaces to allow curing.
- Attention! After application, wash immediately all equipment with cleaning solvent. Do not allow any material to remain in hoses, gun or spray tools.

Mixing ratio in volume:	2 parts Base 1 part Hardener
Nozzle pressure:	150-180 bars
Pot-Life:	40 minutes at 20 °C
Solvent:	Non- denatured ethyl alcohol.
Cleaning solvent:	VD-400
Application:	Twin feed hot airless spray Nozzle diameter: 0.021" a 0.029" Nozzle pressure: 150-180 bar
Brush/ Roller	Touch-up, reworks and small areas Dilution: 0-5% in volume

Conditions for application

- The substrate temperature must be above 10°C and 3°C above dew point to prevent condensation.
- Relative humidity should be below 70%. In enclosed spaces, humidity should be controlled with a dehumidifier.
- Checking the environmental conditions when applying the product is particularly important to prevent surface defects and adhesion problems.

Remarks

- A deviation of 10-20% between measured dry and wet thickness is possible caused by release of air trapped in the film. This phenomenon is due to thixotropy and to paint surface tension.
- Theoretical performance may vary depending on several factors including method of application, surface roughness, losses during preparation and implementation, excessive dilution or application on uneven surfaces.
- Application by brush or roller will require a minimum of 3-4 coats to obtain a suitable thickness and a uniform finish. It is recommended to pay special attention to pot-life and thinning. At 20 °C overcoating window is between 24-72 h. If the maximum overcoating time is exceeded it is necessary to provide surface roughness to ensure adhesion.
- It is recommended to previously cut by brush in welds, and sharp edges to improve wetting of these areas and enhance protection.
- Once cured and before coming into service, it is recommended to wash with fresh water.

Health and Safety

Although **PV. Epoxy WT** is a 100% solids product, if expected to be used at high temperatures, irritable vapors can be emitted. Avoid inhalation of spray mist and ensure continuous ventilation and adequate PPE's are used. In case of contact with the skin, the affected area must be immediately washed with non alkaline cleaners or warm soap. Clean and rinse several times with soap and water.

Complete information on MSDS in www.pinvisacoatings.com.

Packaging and storing

Set of 600 litres: Base 200 l.; Hardener 200 l (for others please consult)
Storage 24 months in the original closed packs in a controlled storage between 10 and 35°C and far from heat sources.
After that period of time, it is recommended not to use the product and consult a possible reinspection in our installations.