



permacor® 136/TW

Epoxy coating material solvent free.

1. Product Description

Permacor 136/TW is a modern, solvent-free 2-component coating material based on epoxy resin, offering the following properties:

- Meets the recommendations on plastics and drinking water (KTW) and the Federal Environmental Office (UBA) guideline for epoxy resins in contact with drinking water
- Components of the formulation meet the Council of Europe Resolution AP (96) 5 ("Synoptic Document").
- Physiologically unobjectionable
- Viscoplastic, mechanically tough, resistant to abrasion and impact.
- Application is highly reliable due to the ability to check for pores in the coating.
- Excellent adhesion to steel, stainless steel, aluminium and mineral surfaces.
- Application is particularly economical, since the coating can efficiently be applied using one working pass of an airless spraying procedure directly to metallic and impregnated mineral surfaces.

2. Application Areas

Internal coating of tanks, containers, pipes and other equipment used for drinking water.

3. Packaging and Colours

Packaging:	10 kg primary component and 3 kg hardener
Colours:	beige, light blue
Finish:	glossy

4. Technical Data

Composition:	Permacor 136/TW: Permacor hardener 136/TW-00:	epoxy resin, solvent-free polyamine
Mass density (Mixed):	approx. 1.35 g/cm ³	
Solids content (Mixed):	volumes weight	100 % or 740 ml/kg 100 %
Theoretical coverage:	2.5 m ² /l or 1.85 m ² /kg, each at 400 µm	
Heat resistance:	dry: wet/liquid: request	approx. +100 °C continuous depending on the medium, by request
Shelf life:	12 months if stored under dry, cool conditions in sealed, original containers.	

5. Application Instructions

Surface Preparation / Steel:

Remove welding beads, grind welded seams around welded overlaps in accordance with DIN 28251 and DIBt, Series B, Volume 14.

Blast Sa 2 ½ in accordance with DIN EN ISO 12944-4. Mean roughness RZ ≥ 50 µm.

Inspection certificate for blasting material must be available.

Stainless Steel / Aluminium:

Removal of deposits which would hinder bonding. The surface must be dry and free from dirt, grease or oil.

Blast with mineral blasting material (mean roughness RZ ≥ 50 µm).

Concrete:

The surfaces to be coated must satisfy technical building standards, be of good bearing quality, stable and free from intermediate layers which might interfere with adhesion.

The tensile strength of the surface must on average be at least 1.5 N/mm², and the lowest value must not be less than 1.0 N/mm².

If mechanical stresses are expected to be heavy, the mean value required is 2.0 N/mm² and the lowest individual value 1,5 N/mm². Appropriate preliminary

coatings, suitable for this system, must be used. The times specified between the application of various layers must be observed.

Application and curing temperature:	at least +15 °C (surface and environment).
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Relative humidity:	max. 80 % (Observe dew point, temperature must be ≥ 3 K above dew point). If these limit values are approached (for example when working in cellars) we recommend that heating or drying equipment is used.
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Mixing the components:	Thoroughly stir the main component and add hardener in the specified ratio. Then mix thoroughly by machine. Then pour the mixed material into a clean container, and mix through briefly once again.
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Mixing ratio by weight:	Component to hardener 100 : 30
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Preparation of coating material:	Always applied without use of thinner: Airless spraying: powerful airless spraying device e.g.: WiWa 18066, remove screen, suck directly (without connected suction hose), followed by continuous flow heater Spray nozzle: 0.48 – 0.66 mm Spray angle: e.g. 50° Spray hose: 3/8" max. 20 m, in front of the spray gun 1/4", approx. 2 m Material temperature: min. +15°C Spray temperature: +30°C - +40°C We recommend that the spray hose is insulated if temperatures are low. Brushing and rolling: unthinned (any bubbles to be smoothed with a surface wiper). A number of passes (usually 3) are required to achieve the minimum coating thickness of 400µm.
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Cleaning Solvent:	Thinner E+B
Pot life:	20 - 40 minutes at +20 °C, depending on the quantity mixed
Drying/ curing (20°C):	<p>Dry to touch: After approx. 14 hours overcoatable: after approx. 8 hours, at most after 36 hours</p> <p>The coating will have to be blasted if the intermediate drying time is longer.</p> <p>fully cured: Walkable after approx. 24 hours Full mechanical and chemical stress after 7 days. Containers or pipes can be closed immediately after the coating has been applied. The coating hardens without the need for fresh air.</p>
Minimum recommended dry film thickness:	400 µm per layer
Theoretical covering capacity:	1.85 m ² /kg at 400 µm
Theoretical consumption:	0,54 kg/m ² at 400 µm
	Actual consumption depends on surface properties and on the application procedure.
Pore detection:	Using appropriate high-voltage device (e.g. Fischer Poroskop H2D/H8D with rubber wiper). Test voltage 5 Volt per µm coating thickness Improvement:
Repairs:	Clean the uncovered or damaged locations, dull-grind or blast the overlapping areas and thoroughly de-dust. Then immediately apply further coating.
Advice on first filling:	Soak in water or rinse for at least one day before the coated container or pipe is filled for the first time with material for consumption.

6. Recommendations for Proven Coating Systems

For the sake of more effective inspection it is recommended that different colours are used for each layer of the coating structure.

System A: Protection of steel surfaces

Coatings	1 x Permacor 136/TW Minimum dry film thickness 400 µm.
Substrate	Properties in accordance with section on "Surface preparation: Steel" Steel

System B: Protection of stainless-steel or aluminium surfaces

Coatings	1 x Permacor 136/TW Mindestschichtdicke 400 µm
Substrate	Properties in accordance with section on "Surface preparation: Stainless-steel/aluminium:

System C: Protection of mineral surfaces

Coatings	1 x Permacor 136/TW Mindestschichtdicke 400 µm
Primer / Sealer:	1 x Betonol G 170
Levelling mortar	2 x Betonol S 165
Substrate	Properties in accordance with section on "Surface preparation: Concrete

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Date of issue: January 2004. Former versions are no longer valid