

**SOLVENT-FREE STABLE THIXOTROPIC TWO-COMPONENT EPOXY RESIN COATING
FOR SMOOTH COATINGS ON WALL AND CEILING**

DESCRIPTION

EP 652 W is a pigmented, two component epoxy resin system for wall and ceiling adjusted stable, solvent-free, and flexible. EP 652 W is used for smooth, free of pores, and jointless coating on wall and ceiling, applied in multiple layers. Depending on the demand of resistance and appearance apply in 2 to 4 layers with in-between-grinding. The completely pigmented material may be applied on the prepared substrate with a trowel or notched trowel. Smooth out subsequently. Use VA 1040 to increase robustness and crack bridging. The product results in a smooth, free of pore surface. It is especially hygienic, easy to clean, and very well decontaminable. Static crack bridging of 0.5 mm is achieved by flexible adjustment. EP 652 W has very well aligned properties and may be combined with the pigmented and two component polyurethane sealer PU 806 E or PU 806 E - Wall. The jointless surface is optically very appealing and offers a good alternative to other wall coatings. Cured coatings are, to a large extend stable to mechanical load and offer good resistance to different chemicals. The coating is resistant to water, salt, salt solutions, alkalis and bases, as well as diluted mineral acids, e.g. hydrochloric acid and acid sulphur. Short-term resistance to concentrated and diluted organic acids, like formic acid and acetic acid. No permanent resistance to chlorinated hydrocarbon, ester, concentrated azotic acid, and others. Short-term resistance to solvents like e.g. benzene, fuel, grease, oil, and so on. For demand to specific resistance please seek advice. EP 652 W is available in different colour tones. Special colours can be produced in minimum purchase quantities. Please ask! All epoxy resin coatings are subject to slight colour changes which becomes visible using pale colours. Sealing with PU 806 E – WALL stabilizes the colour tone.

RECOMMENDED FOR

- ▶ EP 652 W in combination with PU 806 E - Wall can be used for wall tiles or precast-part-element-areas as a decorative alternative.
- ▶ Use as crack-bridging wall coating for substrate susceptible to cracks, like e.g. precast-part-elements like e.g. concrete and so on.
- ▶ Results in a robust, hygienic coating for wall and ceiling when used in combination with fibre or fleece.
- ▶ For areas with increased humidity, e.g. as splash guard and much more.
- ▶ For the food industry or clean room technology with increased demand to cleanliness and decontamination.
- ▶ For hospitals and health care facilities.
- ▶ Thin coating in layers of approx. 1 mm thickness with top sealer PU 806 E - Wall for surfaces with light mechanical load resistance.
- ▶ Smooth coating for commercially used areas with medium mechanical load, e.g. production areas for many economic sectors (coatings of 2 - 3 mm).

ADVANTAGES

- ▶ Thixotropic-stable
- ▶ Crack-bridging
- ▶ Robust
- ▶ Pigmented, smooth surfaces
- ▶ Resistant to water and chemicals
- ▶ Jointless
- ▶ Solvent-free

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TECHNICAL CHARACTERISTICS

Characteristic	Test Result	Test Method
Viscosity (Components A+B)	Textured viscous paste	
Density (Components A+B)	1.14 kg/lit	EN ISO 2811-2 at 68 °F (20 °C)
Color	Approx.: RAL 9010, RAL 1015, RAL 7035. Other colors upon request!	
Solid content	100 %	KLB - Method
Water absorption	< 0.3 weight %	DIN 53495
Tensile bending strength	> 20 N/mm ²	DIN EN 196/1
Compressive strength	> 50 N/mm ²	DIN EN 196/1
Shore hardness A/D	60/18	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	45 mg	ASTM D4060
Processing time at 50 °F (10 °C)	90 minutes	
Processing time at 68 °F (20 °C)	60 minutes	
Processing time at 86 °F (30 °C)	30 minutes	
Processing temperature	50 °F (10 °C) minimum room and wall temperature	
Curing time at 50 °F (10 °C)	20-30 hrs (Accessibility)	
Curing time at 68 °F (20 °C)	14-20 hrs (Accessibility)	
Curing time at 86 °F (30 °C)	10-15 hrs (Accessibility)	
Curing	2-3 days for mechanical load at 68 °F (20 °C) 7 days for chemical resistance at 68 °F (20 °C)	
Further coatings	After 22 - 26 hours at 68 °F (20 °C)	
Amount of coats	Usually 2 coats	

The aforementioned results are related to average laboratory test results. In reality the climate changes, such as temperature, moisture and surface porosity may change these results.

DIRECTIONS FOR USE

Surface Preparation: The substrate to be coated has to be levelled, dry, free of dust, has to have adequate tensile and compressive strength, and be free from weakly-bonded components or surfaces. Materials impairing adhesion, such as grease, oil and paint residues must be removed using suitable methods. Note the product information for the recommended primers e.g. EP 30, EP 50, EP 51 RAPID S, and EP 52 Spezialgrund. Suitable substrates are concrete surfaces as well as water-resistant rendering. The surface strength should be sufficient and adjusted to the subsequent usage. The surface strength of at least 0.5 N/mm² is recommended. Furthermore dry wall panels, suitable for wet rooms, according to DIN EN 520 can be coated. We recommend to obtain advice for any other substrates. The surface to be coated should be prepared mechanically, preferably by grinding. The prepared surface has to be primed accurately, saturated, and free of pores. Watch for sufficient smoothness because irregularities on the surface may appear. Depth of roughness may be adjusted by additional coatings. Conduct a trial if in doubt.

Mixing: EP 652 W will be supplied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Decant the hardener component B into the resin completely. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes, for a homogeneous mixture, free of streaks. To avoid mixing errors, it is recommended to principally empty the resin/hardener-mixture into a clean container and mix briefly once again.

Mixing ratios:

A:B = 3:1 parts by weight

A:B = 100:36.5 parts by volume

Application: Process immediately after mixing with a trowel or notched trowel by pulling out an even layer on the prepared surface. Smooth the surface with a trowel. We recommend to conduct trials because the flexible, stable material requires some practice. Divide working areas before starting work and always work "fresh-in-fresh" to avoid any shoulders. Grinding of the cured coating takes place after 14 - 20 hours. We

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recommend a random orbit sander with a vacuum device. It may be necessary to dust off the area with a broom. The smooth coating is carried out with a flexible spatula (Japanese or rubber spatula) by pulling off the surface evenly. Smoothing results will show right away. Wall and air temperature must not fall below 50 °F (10 °C) and/or humidity must not exceed 75 %. The difference in floor- and room-temperature must be less than 37.4 °F (3 °C) so the curing will not be disturbed. If a dew-point situation occurs adhesion may malfunction, curing may be disturbed, and spotting may occur. Exposure to water has to be avoided for the first 7 days. Curing time applies to 68 °F (20 °C). Lower temperature may increase, higher temperature may decrease the curing and processing time. If working conditions are not complied with, deviations in the described properties may occur in the end product.

Build-up of Coat:

Smooth coating for wall and ceiling

- Prime with the recommended KLB-Base Coats, like e.g. EP 727 E, EP 50, EP 52 Spezialgrund, consumption approx. 0.120 - 0.200 kg/m², depending on the absorbency of the substrate.
- Apply the wall coating EP 652 W with a trowel or a notched trowel (triangular toothing 4 mm, e.g. Multitool R4), smooth the surface. Consumption: 0.8 - 1.2 kg/m².
- To ease the processing, and stabilize the surface, we recommend the use of the VA 1040. For this purpose, press the fabric with a trowel into the fresh coating and smooth subsequently. For adjacent webs, the junction area must overlap approx. 5 - 10 cm.
- An intermediate sanding is always required for subsequent layers. This can be carried out after 14 - 20 hours with a random orbit sander with vacuum device (grain size K 80).
- Optional: To achieve very even surfaces and to increase the thickness of layers another layer of EP 652 W with a consumption of 0.8 - 1.2 kg/m² may be applied. Grind in between after 14 - 20 hours with grain size K 80.
- For a smooth surface apply a coat of EP 652 W. Pull off evenly with a flexible or Japanese spatula, consumption approx. 0.250 - 0.400 kg/m².
- After approx. 14 - 20 hours once again in-between grinding with a random orbit sander with vacuum device. Recommended grain size K 100.
- Apply the pigmented top coat PU 806 E or PU 806 E - Wall with a lint-free velour or microfibre roller. Consumption 0.150 - 0.200 kg/m².
- Optional: Add an additional transparent seal layer with the solvent 2-component polyurethane sealer PU 882, if the wall areas are stressed with high humidity or intense cleaning work. Consumption approx. 0.130 kg/m².
- Apply the second sealing coat EP 652 E with a nylon roller using criss-cross strokes.

COVERAGE

Work step coating: 0.8 – 1.2 kg/m²
Fine filling: 0.250 – 0.500 kg/m²

Standard coating: 1.3 – 1.6 kg/m² for each 1 mm of layer

SPECIAL CONSIDERATIONS

To remove fresh contamination and to clean tools, use thinners VR 24 or VR 33 immediately. Hardened material can only be removed mechanically.

The product is subject to the hazardous material-, operational safety-, and transport-regulations for hazardous goods. Refer to the DIN-Safety Data Sheet and the information on the labelled containers!

GISCODE: RE 1

Indication of VOC-Content: (EG-Regulation 2004/42), Maximum Permissible Value 500 g/l (2010,II,j/lb): Ready-for-use product contains < 500 g/l VOC.

Contact PENETRON HELLAS S.A. for additional information, regarding your project.

PACKAGING

EP 652 E is available in 6+2 kg and 15+5 kg containers.

STORAGE / SHELF LIFE

Store in dry and frost-free conditions. Ideal storage temperature is between 50 - 68 °F (10 - 20 °C). Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible. When properly stored in a dry place in unopened and undamaged original packaging, shelf life is 12 months. Protect from frost!

SAFE HANDLING INFORMATION

Avoid skin and eye contact. If contact is made, flush areas with lots of water and seek medical advice. Protective gloves, mask and goggles should be worn. For further information please refer to Safety Data Sheet. PENETRON HELLAS S.A. has recently updated Safety Data Sheet on the safe use of PENETRON® products. Each Safety Data Sheet contains health and safety information for the protection of your employees and your customers. KEEP OUT OF REACH OF CHILDREN.

CERTIFICATION

In combination with PU 806 E - Wall suitable for use in foodstuffs according § 31 para. 1, German Food and Feed Code (german law LFGB).

Statical crack bridging according EN 1062-7, procedure A.

Please ask for the tested system structure.

**SOLVENT-FREE STABLE THIXOTROPIC TWO-COMPONENT EPOXY RESIN COATING
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