

EPOLEX[®] UNIVERSAL VARNISH S1300

Two-component epoxy varnish

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Composition

A solution of a medium molecular weight epoxy resin in organic solvents.

Characteristics and use

The varnish is intended for highly glossy and hard transparent coatings of wood, fiber boards, metals and some kinds of plastics and for impregnating absorbent substrates (e.g. concrete, masonry). The varnish is characteristic by an excellent hardness and a high gloss, outstanding chemical resistance against various solvents, oils, alkali substances and fuels. It is resistant to water and humidity and temperatures up to 120°C. It isn't suitable for exterior use. Before use the varnish is mixed properly with the hardener in specified ratio.

The product is suitable for coatings that come into direct contact with food and feed. The product is not intended for coatings that come into direct contact with drinking water and for coatings of children's furniture and toys.

- ◆ high gloss
- ◆ excellent hardness
- ◆ chemical and mechanical resistance
- ◆ suitable for direct contact with food

Application area

Substrate: wood, fibreboards, concrete, brickwork, steel, cork
 Environment: interior
 Examples: parquets, boards, cork floors, chipboard floors, walls and ceilings lining, beams, concrete floors and stairs, brickwork, interior surface of metal tanks, concrete basins

Shades

0000 – colourless

Physical properties

Flow time	20 - 35 s (cup Ford Ø 4 mm)
Weight solids	47 - 53 % (not hardened mixture)
Volume solids	45 % (hardened mixture)
Flash point	> 24 °C
Density of hardened mixture	990 kg/m ³

Emission limits

Top varnish

VOC: 0.51 kg/kg of hardened mixture	TOC: 0.47 kg/kg of hardened mixture
Product subcategory: A/j	Threshold value (2010): 500 g/l
Max. VOC content in ready to use state: 499 g/l	

Penetration

VOC: 0.51 kg/kg	TOC: 0.47 kg/kg
Product subcategory: A/h	Threshold value (2010): 750 g/l
Max. VOC content in ready to use state: 600 g/l	

Properties of hardened coat

Gloss	degree 1 - 2
Pendulum hardness / Persoz	up 30 % in 5 days
Adhesion with crosshatch test	degree 0 (wood, steel)

Drying time

Surface temperature	23 °C
Dust free	< 2 hours
Dry through	< 24 hours
Dry film thickness DFT	35 - 40 µm

Spreading capacity

Wet film thickness WFT	75 - 90 µm
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Dry film thickness DFT	35 - 40 µm
Theoretical spreading capacity	11 - 13 m ² /kg of hardened mixture

Thinning

BALTECH S6300

Hardening

Hardener: EPOLEX S7300

Mixing ratio: 100 weight parts EPOLEX S1300 : **40** weight parts EPOLEX S7300**Mixing ratio: 100** volume parts EPOLEX S1300 : **40** volume parts EPOLEX S7300

The pot life of the hardened mixture is 8 hours (20 °C).

Surface preparation

Before the application, the timber surface shall be clean, dry, well smoothed, with max. 12% humidity and free of resin residues. The timber surface with high content of resins (larch, pine) shall be cleaned of all resin residues, e.g. by washing by BALTECH C6000 nitro-solvent. Quality of wood preparation determines overall look of the wood final finish and affects total lifetime of the coating system.

First it is recommended to treat the timber surface with penetration with a thinned varnish EPOLEX S1300. A penetration ensures uniform absorption of the surface before the next application of paints. Subsequently it is necessary to lightly abrade a surface with a fine sandpaper in the direction of the grain, dust off and then apply finish coats of varnish.

The metal surface must be clean, dry, degreased, free of rust and dust, mechanically cleaned.

Remove all poorly adhering old coats to the solid surface when renovate (in a case of a total removal of the old paint apply new paint system progressively, including wood impregnation). It is recommended to follow the procedure system according to the technical data sheet.

Application conditions

Minimum air and substrate temperature must be 10 °C, maximum 35 °C during application and the entire drying time. The optimal application temperature is 18 to 23 °C and the relative humidity is 40 to 70 %. Lower temperature and higher relative humidity during the application and drying and excessive thickness of the applied film significantly decelerate the drying and hardening process of the coat film.

Type, surface and previous paint wood affects the final shade of coat. Natural wood changes colour when exposed to light independently at the paint. For exotic woods at first it is necessary to test varnish at small area due to the influence of varnish on the final shade of the wood.

This product is not suitable for floor coatings and timber surfaces treated with oils or waxes, respectively products containing waxes.

It is recommended to apply at least three top coats on new floors. Higher thickness of the total layer improves overall quality and durability of the coating. The first 14 days is necessary coating to protect against rough handling and intensive washing the surface of the water.

Workflow

Properly mix before use. Mix with hardener EPOLEX S7300 in prescribed weight ratio and properly mix together. Apply on the prepared surface.

Transparent coating of a wood

- 1x varnish EPOLEX S1300 thinned with a thinner to a viscosity 15-25 s (cup Ford, Ø 4 mm), drying 24 hours / 23 °C;
2. slightly abrade with a sandpaper no. 280-320 and clean off a dust;
3. 1x varnish EPOLEX S1300, drying 24 hours;
4. abrade with a sandpaper no. 320 and clean off a dust;
5. 1x varnish EPOLEX S1300. The drying and maturing may be (if the surface allows it) accelerated by increased temperature, i.e. at 60°C - 60 minutes, at 80°C - 45 minutes, at 100°C - 30 minutes. The coating may be grinded and polished by a grinding paste and polish.

Application

Brush, roller, spraying

Handling

Read the instructions in the Safety Data Sheet before use and follow all safety instructions and regulations. The product contains organic solvents. Follow basic hygiene rules. Do not eat, drink or smoke while using this product. Avoid contact with eyes, skin or clothing. Wear protective gloves, eye protection, protective clothing. Ensure effective ventilation of the workplace. People and animals should not remain in the treated area until the paint dries.

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If on skin: take off contaminated clothing and wash skin with plenty of soap and water. If inhaled: remove person to fresh air. If in eyes: rinse thoroughly for 10-15 minutes with clean water. Remove immediately contact lenses if present. If swallowed: rinse your mouth with water. If you feel unwell or in case of health problems or if in doubt, and accidental ingestion and contact with eyes, always consult a doctor immediately.

Packing	0.84 kg (including hardener); 2.5 kg
Storability	The product keeps the product qualities 5 years from production date in original closed container. To store in dry storage at the temperature 5 to 25 °C. Flammable liquid II. hazard class.
Disposal of packing and waste	Hand over the used, properly empty packing at the collection point of the packing waste. Dispose the packing with the product rest at the place determined by the town for disposal of hazardous waste or hand over to the person authorized for hazardous waste disposal. Further see MSDS.

These data are only for information and their accuracy is influenced by the properties of individual materials and unpredictable factors during application. The user is responsible for correct use of the product according to the direction for use and for correct application of painting system, i.e. he must always evaluate all conditions of application, which could influence final quality of the top treatment. Therefore we always recommend to the user to carry out the test for actual working conditions and type of surface applied. Above mentioned data are data, which influence individual working conditions and therefore they do not establish a legal claim. It is necessary to consult information outside the terms of this catalogue sheet with the producer.

The producer stipulates the right for the change in the catalogue sheets without previous notification.