

TECHNICAL DATA SHEET

KEMAPUR V 7100

Polyurethane transparent varnish without solvents, shiny



PRODUCT DESCRIPTION

2-component transparent polyurethane resin, meant for varnish-over and protection of epoxy or polyurethane floor. Because of its characteristics it improves elasticity, chemical and wear resistance of floor. It can be used as final coating for stone carpets.

Field of use

It is intended for suitably prepared substrates in buildings which are exposed to mechanical and chemical loads, for example kitchens, food industry, production plants, etc. Fully cured it displays a shiny surface, which is well UV, mechanical and chemical resistant and is easily cleaned. The product is also suitable for thin layer levelling for decorative and teraco surfaces in buisnes and industrial objects.

Product properties

Resin for final layer in all KEMA FLOORSYSTEM's as final shiny polyurethane varnish.

In accordance with numbers of layers it can display, when cured, both extremely smooth or a non-skid surface.

- For additional protection of epoxy fl oors
- Colours: transparent, shiny
- For outdoor and indoor use
- UV resistant
- Elastic

PRODUCT DATA

Basic information

Appearance	Two component polyurethane flooring system
Packing	10 kg in steel buckets (6,45 kg component A and 3,55 kg component B)
Storage and expiration date	12 months from date of production if stored properly in undamaged original sealed packaging in dry and cool conditions. Date of production is printed on packaging.

Technical data

Type of product	Transparent polyurethane. Solvent free	
Density of mix (at 23°)	approx.: 1,07 kg/l	EN ISO 2811-2
Minimum temperature of processing	+10°C	
Viscosity of mix (at 23°)	approx.: 1200-1400 mPas	EN ISO 3219
Max. relative air humidity	75 %	
Capillary absorption	< 0,2 by weight in %	DIN 53495
Dry matter content	> 99,9 %	Internal method
Shore D hardness after 7 days	approx.: 65-70	DIN 53505
Abrasion resistance (Taber)	approx.: 30 mg	ASTM D 4060

Abrasion resistance (BCA norm)	AR 0,5	EN 13813:2003-01
Adhesion strenght	B 1,5	EN 13813:2003-01
Impact resistance	IR 10	EN 13813:2003-01

INSTRUCTIONS FOR USE

Consumption

approx. 0,5-0,8 kg/m² for protection of decorative epoxy/polyurethane floor with colored Sand
approx. 0,6-0,9 kg/m² for protection of epoxy/polyurethane coating
approx. 0,6-1,2 kg/m² with trowel on mineral surfaces (like teraco floors, etc...)

Base

The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. The concrete substrate must be sound and of sufficient compressive strength (minimum 25 MPa) with a average pull off strength of 1.5 MPa (minimum measured value has to be up to 1,0 MPa). Moisture content in substrate has to be up to maximum 3,5% (CM method, concrete mark MB at least 35)

Base preparation

Clean cracks and hairline cracks, of dust, residue or other contamination. Fill all cracks with suitable putty. The next day smoothen the putty surface with a sandpaper or a mechanical grinder.
Repairs to the substrate, filling of blowholes/voids and surface levelling can be carried out (if necessary) using appropriate products from the KEMA program (for example KEMAPOX GRUND or KEMAPOX/KEMAPUR FILL products).
The concrete or screed substrate has to be primed or levelled in order to achieve an even surface. High spots must be removed by e.g. grinding.
All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Mix ratio

100:55 (rate of components A and B by weight) or 100:56 (rate of component A and B by volume)

Mix time

Mix together the A and B components. Pour component B into part A and mix until homogenous mixture is reached. When mixing, move the paddle in a circular pattern with an up-and down motion.
If smaller quantity of mixture is to prepare, use separate mixing container, which must be clean and free of dirt, oil, grease, or other contaminants. For weighing of smaller amounts use digital weighing machine, with precision +/- 0,001 kg. Consider mix ratio.

Mix tool

KEMAPUR V 7100 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.

Installation

KEMAPUR V 7100 is used as final polyurethane coat onto sufficient prepared substrate. Over concrete can be applied in one layer.
Mixed polyurethane coat pour onto prepared substrate and spread equally on substrate with a roller or brush.

Tool

For spreading the paint roller, rubber trowel or brush is to used.

Cleaning of tool

Clean all tools and application equipment with polyurethane solvents immediately after use. Hardened and/or cured material can only be removed mechanically.

Coagulation

DRYING TIME

TEMPERATURE 10°C 20°C 30°C

DRYING TIME 10-12 h 5-6 h 3-4 h

Surfaces that have been polished with clear coat are walkable after 18-24 h.

OPEN TIME:

TEMPERATURE 10°C 20°C 30°C

OPEN TIME 12-18 min. 10-12 min. 7-9 min.

READY FOR LOAD:

12-24 h at 20°C for mechanical load

12-24 h at 20°C for contact with moisture

24-48 h at 20°C for chemical loads

LIMITATIONS

Base temperature

+10°C min./ +30°C max.

Air temperature

+10°C min./ +30°C max.

Material temperature

+10°C min.

Warnings

- Protect fresh install polyurethane resin from freezing, raining and other weather conditions. Use product in temperature more than +8°C.
- For the good quality of the coat the suitable and equable temperature and humidity are very important. In case of high humidity it can NOT be applied!
- Maximum moisture content in substrate can be 2% (on concrete with mark MB C30/37, CM method)
- Recommended application temperature above +15°C
- Do not wash surface with water!
- Resins come in two parts, therefore must be mixed in the precise ratio given in the manufacturer's instructions.

- Freshly applied KEMAPUR V 7100 should be protected from damp, condensation and water for at least 24 hours.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- For external applications, apply on a falling temperature. If applied during rising temperatures "pin holing" may occur from rising air.

Recommendation: Remains of the unhardened/unset material have to be removed in accordance with the legislation.

Data source: All technical data in this technical sheet was obtained by laboratory research. Actual data may differ due to different working conditions.

Local restrictions: Due to specific local regulations the installed product can differ from country to country. For exact instructions for use a country specific technical sheet should be obtained.

SAFETY DATA

While dealing with polyurethane, please consider the safety precautions mentioned in the risk and safety phrases. Avoid pollution of the unprotected skin – wash off with warm water and soap, if necessary. Wear protective clothing and use barrier cream before starting your work, please!
See also safety data sheets.

LEGAL BASE

Information and recommendations related to use of KEMA products are presented in good faith and believed to be correct. The later is based on our knowledge and experience with the products. Information is supplied upon the condition that products are stored and used according to the recommendations and the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to Information or the product to which information refers. In no event will KEMA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to the use any product, process, equipment or formulation in conflict with any patent, and KEMA makes no representation or warranty, expressed or implied that the use thereof will not infringe any patent. All orders fall under current sales and supply conditions. The user should always check the latest technical sheet available upon demand.