

TECHNICAL DATA SHEET

KEMAPUR V 7100 M

Polyurethane transparent varnish with low emmision, checked on AgBB, matt



PRODUCT DESCRIPTION

Two-component, environmentally friendly, UV-resistant matte varnish with zero emissions, which can be used in epoxy and polyurethane surfaces. Final coating is distinguished by a uniform matte appearance. The coating has good resistance to the various degrees of water, diluted acids and alkalis, as well as on the motor and fuel oil. It features easy cleaning. It can also be used as a final varnish on the vapor control systems.

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

Product properties

- Environmentally friendly
- Colours: transparent, matte
- For outdoor and indoor use
- UV resistant
- Elastic
- Water vapour permeable
- Easy application

PRODUCT DATA

Basic information

Appearance	Two component polyurethane flooring system
Packing	5 kg in steel buckets (4,4 kg component A and 0,6 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, environmentally friendly	
Density of mix (at 20°)	approx.: 1,06 kg/l	EN ISO 2811-2
Minimum temperature of processing	+10°C	
Viscosity of mix (at 23°)	aprox.: 250-400 mPas	EN ISO 3219
Max. relative air humidity	75 %	
Ignition point	Non-flammable	DIN 51755
Dry matter content	>40 %	Internal method
Shore D hardness after 7 days	approx.: 65-70	DIN 53505
Abrasion resistance (Taber)	>13 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 5	EN 13813:2003-01
Water vapour permeability coefficient (μ)	7500	EN ISO 7783-2
Value Sd (0,1 mm)	0,75	EN ISO 12572

INSTRUCTIONS FOR USE

Consumption

approx. 0,120-0,160 kg/m² for one layer

Values are theoretical and can change due to surface porosity, surface structure or unevenness of the surface.

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

100:13,6 (rate of components A and B by weight) or 100:12,4 (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 be prepared, 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. It is mandatory to wait 10 minutes after mixing, and once again stir the total amount for at least 1 minute.

Mix tool

KEMAPUR V 7100 M must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment. It is mandatory to wait 10 minutes after mixing, and once again stir the total amount for at least 1 minute.

Installation

KEMAPUR V 7100 M 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 be 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

OPEN TIME:

Temperature 10°C 20°C 30°C

Time 180 min. 120 min. 50 min.

DRYING TIME:

Temperature 10°C 20°C 30°C

Time 14-18 h 12-14 h 8-12 h

The product is ready for:

After 2-3 h dust does not stick to the surface anymore.

2-3 days at 20°C for mechanical load

7 days at 20°C for chemical load

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 M 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.