Temafloor PU

DESCRIPTION
A solvent-free, elastic two-component polyurethane coating.

PRODUCT FEATURES AND RECOMMENDED USES
- For new and old concrete and asphalt floors exposed to mechanical and chemical stress
- Good resistance to abrasion
- Elongation value approx. 60%
- Withstands water, oils, greases, chemicals and dilute solutions of non-oxidizing acids, alkali and salt solutions. Resists only temporary splashes of oxidizing acids and bleaching chemicals
- Withstands +80ºC dry heat. Does not resist abrupt changes of temperature
- Good impact resistance
- Self-levelling, to be applied with serrated or steel trowel
- Recommended for industrial and storage facilities, repair shops; e.g. air handling units, process or paper machine units and corridors

TECHNICAL DATA

Volume solids                                      approx. 100%
Specific gravity                                  1.4 kg / litre (mixture)
Mixing ratio                                      Base 4 parts by volume Temafloor PU
                                                  Hardener 1 part by volume 008 4011
Pot life (+23°C)                                  20–30 minutes on substrate, abt. 15 minutes in the mixing container.
Practical coverage                                Practical coverage depends on the porosity and evenness of the substrate and on the application method.
                                                  Film thickness 1 mm coverage approx. 1 m²/litre
                                                  Film thickness 2 mm coverage approx. 0.5 m²/litre
Drying time (+23°C)                               Dust dry after 6 hours
                                                  Light trucking after 24 hours
                                                  Fully cured after 7 days
                                                  At lower temperatures the curing process will last longer.
Cleaning of equipment                             Thinner 1061.
Finish                                           High gloss.
Colors                                           TVT 0229, most of RAL Classic colours and limited range of RAL Effect ja NCS S colours
Thinning instructions                             Do not thin Temafloor PU polyurethane coating.
Reaction to fire                                  B_Fl-s1 according to standard EN 13501-1
VOC                                              VOC 2004/42/EC (cat A/j) 500 g/l (2010)
                                                  Temafloor PU: max. VOC < 500 g/l
Can sizes                                        20,0 L, 1000,0 L
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APPLICATION INSTRUCTIONS

Surface preparation
New concrete: Remove laitance by power grinding, vacuum grit blasting or hydrochloric acid etching. Choose the method best suited for the premises. After grinding remove dust carefully with a vacuum cleaner. Hydrochloric acid etching is carried out with diluted hydrochloric acid (1 part concentrated hydrochloric acid, 4 parts water). Rinse with plenty of water. Dry the floor.

Old concrete: Remove all grease, oil, chemicals and other impurities by Maalipesu detergent. Remove old peeling paint layer by grinding, milling or vacuum grit blasting. Choose the method best suited for the premises. Clean out pot-holes removing all loose friable material. Open cracks with e.g. an abrasive tool. Remove loose material and dust.

If cementitious screed is used, check compatibility with the levelling screed manufacturer.

Application conditions
The relative humidity of the concrete should not exceed 97%. The temperature of the ambient air, surface or coating should not fall below +15°C during application or drying. Relative humidity of air should not exceed 70%.

Mixing components
First stir base and hardener separately. Mix the correct proportions of base and hardener thoroughly (approx. 2 minutes to get homogenous mixture) by using a low speed industrial hand drill with a paddle. Insufficient mixing or incorrect mixing ratio will result in uneven drying of the surface, weaken the properties of the coating and risk the success of the application.

Priming
Prime using Temafloor 400 or Temafloor 220W epoxy varnish thinned 30–50% with Thinner 1029 or Fontefloor EP Primer epoxy varnish thinned about 20-50% with water. Pour the primer onto the floor and apply as much as is needed to impregnate the concrete surface. If necessary, repeat priming to get a non-porous surface. A porous priming coat will result in holes and air bubbles in the finished coating. Subsequent treatment can be carried out after 2 hours using "wet-on-wet" technique.

Asphalt floors should be primed by applying unthinned Temafloor PU with a suitable steel or rubber trowel.

Scatter sand of grain size Ø 0,1–0,6 mm on the fresh primer coat to ensure the screed adhesion and prohibit gliding of the screed. Remove loose sand with vacuum cleaner before coating with Temafloor PU.

Patching
Patch pot-holes and cracks with unthinned Temafloor 400 epoxy varnish or Fontefloor EP Primer and dry, clean sand. Mixing ratio e.g. 1 part by volume of epoxy mixture and 1–2 parts by volume of sand of grain size Ø 0.1–0.6 mm. Sand the patched areas before overcoating, if necessary.

Note! Concrete surface should always be primed before patching.

Topcoating
Overcoating should be done within 16–24 hrs after priming. If the primed surface is not overcoated within 24 hrs, it should be abraded. Pour the mixture onto the floor and apply it with a trowel and level with a roller. Control that the thickness of layer is correct by observing coating consumption and by measuring the film thickness. Recommended layer thickness is 1.0–2.0 mm. Use spiked roller to finish the surface approx. 10–20 min after application. Spiked roller helps removing air bubbles from the coating.

Note! Add the remaining mixture to the next batch of the product, do not scrape it out of the container onto the floor.
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HEALTH AND SAFETY

Containers are provided with safety labels, which should be observed. Further information about hazardous influences and protection are detailed in individual health and safety data sheets.

A health and safety data sheet is available on request from Tikkurila Oyj.

For industrial and professional use only.

The above information is not intended to be exhaustive or complete. The information is based on laboratory tests and practical experience, and it is given to the best of our knowledge. The quality of the product is ensured by our operational system, based on the requirements of ISO 9001 and ISO 14001. As manufacturer we cannot control the conditions under which the product is being used or the many factors that have an effect on the use and application of the product. We disclaim liability for any damages caused by using the product against our instructions or for inappropriate purposes. We reserve the right to change the given information unilaterally without notice.

The product is intended for professional use only and shall only be used by professionals who have sufficient knowledge and expertise on the proper use of the product. The information above is advisory only. To the extent permitted by applicable law, we shall not approve of any liability for the conditions under which the product is being used or for the use or application of the product.

In case you intend to use the product for any other purpose than that recommended in this document without first getting our written confirmation on the suitability for the intended use, such use takes place at your own risk.
The European harmonized product standard EN 1504-2:2004 defines the requirements for surface protection systems for concrete.

This product is tested and CE-labelled in accordance with the tables 1d, 1f and 1g in the appendix ZA.

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>Permeability to CO2</td>
<td>$s_D &gt; 50 \text{ m}$</td>
</tr>
<tr>
<td>Impact resistance</td>
<td>Class II: $\geq 10 \text{ Nm}$</td>
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<tr>
<td>Capillary absorption and permeability to water</td>
<td>$w &lt; 0.1 \text{ kg/m}^2 \cdot \text{ h}^{0.5}$</td>
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<tr>
<td>Abrasion resistance</td>
<td>$&lt; 3000 \text{ mg}$</td>
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<td>Reaction to fire</td>
<td>$B_{fl-s1}$</td>
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<tr>
<td>Adhesion strength by pull off test</td>
<td>$\geq 2.0 \text{ N/mm}^2$</td>
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<td>Release of dangerous substances</td>
<td>NPD</td>
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<tr>
<td>Permeability to water vapour</td>
<td>Class II, $5 \text{ m} &lt; s_D &lt; 50 \text{ m}$</td>
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<tr>
<td>Resistance to severe chemical attack</td>
<td>Class II</td>
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