Temafloor 500M

DESCRIPTION

A two-component, solvent-free epoxy coating. M1 certified.

PRODUCT FEATURES AND RECOMMENDED USES

- The M1 classification for low-emitting building materials has been granted by the Finnish Building Information Foundation RTS
- Good resistance to abrasion
- 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. A separate chemical resistance table available
- Withstands +70ºC dry heat and +60ºC in immersion. Does not resist abrupt, great or repeated changes of temperature
- Self-levelling coating
- For new and old concrete floors in car parks, garages, business premises, shopping centres, restaurants and cafe`s
- Also suitable for floorings exposed to heavy mechanical and chemical stress in industrial and storage facilities, repair shops; e.g. process or paper machine units and corridors

TECHNICAL DATA

Volume solids

approx. 100%

Specific gravity

1.4 kg / l (mixture).

Mixing ratio

Base	3 parts by volume	710006691/ 710006692
Hardener	1 part by volume	710006693

Pot life (+23°C)

20–30 minutes on substrate, approx. 15 minutes in the mixing container.

Practical coverage

Coverage on concrete floors is on the average:
film thickness 0.3 mm coverage approx. 3 m²/litre
film thickness 0.5 mm coverage approx. 2 m²/litre

Practical coverage depends on the porosity and evenness of the substrate and on the application method

Drying time (+23°C)

Dust dry after 6 hours
Light trucking after 24 hours
Fully cured after 7 days
At lower temperature the curing process will last longer.

Cleaning of equipment

Thinner 1029 or 1031.

Finish

Full gloss.

Colors

RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY colour cards. Temaspeed Premium tinting.

Thinning instructions

Do not thin Temafloor 500M epoxy 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 500M: max. VOC < 500 g/l

Can sizes

20,0 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 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.

Cementitious levelling screed: 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 +15ºC during application or drying. Relative humidity of air should not exceed 80%.

Note! There is a natural tendency of epoxy coatings to chalk and discolor on exterior exposure.

Mixing components

Mix the correct proportions of base and hardener thoroughly (approx. 2 minutes) by using a low speed hand drill with a paddle. The amount of mixture depends on the area to be coated and on the pot life of the mixture. 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 30–50% with water thinned Fontefloor EP Primer or 30-50 % with Thinner 1029 (or 1031) thinned Temafloor 200 Primer or Temafloor 400 epoxy varnish. Pour the mixture onto the floor, apply with a rubber trowel and level with a roller. 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.

Patching

Patch pot-holes and cracks with Colofill putty or a mixture of unthinned Fontefloor EP Primer or Temafloor 200 Primer epoxy varnish or Temafloor 500M epoxy coating 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 0.1–0.6 mm. Grind the patched areas before overcoating.

Topcoating

Overcoating may be carried out with unthinned Temafloor 500M not earlier than 12 hrs and not later than 24 hrs after priming and patching. If the primed surface is not overcoated within 24 hrs, it should be abraded. Pour the coating mixture onto the floor and spread it with a serrated steel trowel. Finalize with spike roller after ~ 30 min. Recommended film thickness is 0.3–0.5 mm.

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.

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EN 13813

The European harmonized productstandard EN 13813:2002 defines the requirements for Screed materials and floor screeds, including synthetic resin screeds.

This product is tested and CE-labelled in accordance with the tables ZA.1.5 and ZA.3.3 in the appendix ZA.3.

CE	
0809	
Tikkurila Oyj Kuninkaalantie 1 FI-01300 VANTAA	
11	
TIK-A019-2018	
EN 13813	
Synthetic resin screed.	
Impact resistance	IR4
Capillary absorption and permeability to water	$w < 0,1\ kg/m^2 \cdot h^{0,5}$
Chemical resistance	CR 1,2,4,5,8,10,11,12,14 (class 2)
Release of corrosive substances	NPD
Abrasion resistance	NPD
Reaction to fire	B_{FL}-s1
Adhesion strength by pull off test	B 2.0
Release of dangerous substances	NPD
Sound absorption	NPD
Sound insulation	NPD

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EN 1504-2:2004

The European harmonized productstandard 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.

CE	
0809	
Tikkurila Oyj Kuninkaalantie 1 FI-01300 VANTAA	
13	
0809-CPD-0773	
TIK-A018-2018	
EN 1504-2:2004	
Product for protection and repair of concrete structures – Coating.	
Permeability to CO2	s_D > 50 m
Impact resistance	Class I: ≥ 4 Nm
Capillary absorption and permeability to water	w < 0,1 kg/m² · $h^{0,5}$
Abrasion resistance	< 3000 mg
Reaction to fire	B_{FL}-s1
Adhesion strength by pull off test	≥ 2,0 N/mm²
Release of dangerous substances	NPD
Permeability to water vapour	Class II, 5 m < s_D < 50 m
Resistance to severe chemical attack	Class II