# Temacoat RM 40

## DESCRIPTION

A two-component, resin modified epoxy paint.

## PRODUCT FEATURES AND RECOMMENDED USES

- A universal primer, a single-coat paint and a topcoat. The product has good adhesion to steel, zinc and aluminium surfaces exposed to severe abrasion or chemical stress.
- Suitable for concrete surfaces and has a CE marking. CE marking is not valid when Hardener 008 5602 is used.
- Can be used on steel structures in wet environment, e.g. inside pontoons, ballast-water tanks and ship hulls. Other usage areas are steel constructions in underground and underwater applications and surfaces exposed to severe splashing. Not suitable for swimming pools.
- Resistant to grey/waste water when applied 2x125µm.
- Recommended for building frameworks, tubular bridges, conveyors, ship hulls and other steelwork and equipment.

CE

## TECHNICAL DATA

**Volume solids**

65±2% (mixture, ISO 3233)

**Weight solids**

77±2% (mixture)

**Specific gravity**

1.2–1.3 kg / l (mixture)

**Mixing ratio**

| | | |
|---|---|---|
| Base | 4 parts by volume | Temacoat RM 40 |
| Hardener | 1 part by volume | 008 5600, 008 5602* or 008 5605 (fast) |

*sold only in China

**Pot life (+23°C)**

8 hours with Hardener 008 5600 or 008 5602
4 hours with Hardener 008 5605

**Recommended film thicknesses and theoretical coverage**

| Recommended film thicknesses | | Theoretical coverage |
|---|---|---|
| wet | dry | |
| 125µm | 80µm | 8.1 m²/l |
| 195µm | 125µm | 5.2 m²/l |

Practical coverage depends on the application method, painting conditions and the shape and roughness of the surface to be coated.

Note! The painting work should be performed and supervised according to 12944-7 if not otherwise stated in the respective technical data sheet. Excessive film thickness may result e.g. in cracking, sagging, prolonged drying time, soft film, less chemical resistance, gloss deviation, adhesion and intercoat functionality. In case the product is used otherwise than stated in the standard a written approval from Tikkurila is required.

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**Drying time**

| DFT 100µm | | +5ºC | +10ºC | +23ºC | +35ºC |
|---|---|---|---|---|---|
| Dust dry, after | with Hardener 008 5600 or 008 5602 | 12h | 7h | 3½h | 1h |
| | with Hardener 008 5605 | 6h | 4h | 2½h | 45min |
| Touch dry, after | with Hardener 008 5600 or 008 5602 | 18h | 12h | 5h | 3h |
| | with Hardener 008 5605 | 10h | 7h | 4h | 2½h |
| Recoatable, min. after | with Hardener 008 5600 or 008 5602 | 18h | 12h | 4h | 2h |
| | with Hardener 008 5605 | 10h | 7h | 3h | 1½h |
| Recoatable, surfaces to be submerged, min. after | with Hardener 008 5600 or 008 5602 | 2d | 36h | 16h | 8h |
| | with Hardener 008 5605 | 1½d | 18h | 12h | 6h |
| Recoatable with polyurethane paints, min. after | with Hardener 008 5600 or 008 5602 | 3d | 48h | 24h | 12h |
| | with Hardener 008 5605 | 1½d | 24h | 16h | 8h |

Drying and recoating times are related to the film thickness, temperature, the relative humidity of the air and ventilation.

Painted surfaces must be stored indoors at a temperature of min. +20°C for at least 24 hours before exposed to weather conditions. Forced drying may shorten the time before exposing the painted objects to outdoors. Please consult Tikkurila Technical Service for more information.

**Gloss**

Semi-gloss.

**Color shades**

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

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## APPLICATION INSTRUCTIONS

**Surface preparation**

Oil, grease, salts and dirt are removed by appropriate means. (ISO 12944-4)

Steel surfaces: Blast clean to grade Sa2½. (ISO 8501-1) If blast cleaning is not possible, phosphating is recommended for cold rolled steel to improve adhesion.

Zinc surfaces: Sweep blast clean with mineral abrasives, e.g. quartz sand, to an even roughness. (SaS, SFS 5873) If sweep blasting is not possible, the surface should be roughened by hand abrading or washed with Panssaripesu detergent. For hot dip galvanized surfaces see separate application instructions or contact Tikkurila Technical Service.

Aluminium surfaces: Sweep blast clean with non-metallic abrasives to an even roughness. (SaS, SFS 5873) If sweep blasting is not possible, the surface should be roughened by hand abrading or washed with Maalipesu detergent.

Primed surfaces: Oil, grease, salt and dirt are removed from the surface by appropriate means. Repair any damage to the primer coat. Note the overcoating time of primer. (ISO 12944-4)

Concrete surfaces: The surface must dry and at least 4 weeks old. The relative humidity of the concrete should not exceed 97%. Remove any splashes and unevennesses by grinding. Remove laitance and form oil from concrete castings by sanding or blast cleaning. Any cracks, crevices and voids must be repaired with a mixture of Temafloor 200 and fine dry quartz sand.

Application: 2–3 x Temacoat RM 40

**Recommended primers**

Temacoat RM 40, Temacoat GPL-S Primer, Temacoat GPL-S MIO, Temabond ST 200, Temabond ST 300, Temasil 90, Temazinc 77, Temazinc 99.

**Recommended topcoats**

Temacoat RM 40, Temadur 10, Temadur 20, Temadur 50, Temadur 90, Temadur HB 50, Temadur HB 80, Temadur HS 90, Temadur SC-F 20, Temadur SC-F 50, Temadur SC-F 80, Temathane 50, Temathane 90, Temathane PC 50, Temathane PC 80.

**Application conditions**

All surfaces must be clean, dry and free from contamination. The temperature of the ambient air and surface should not fall below +5ºC during application and drying. Relative humidity of the air should not exceed 80% during application and drying. The surface temperature of steel should remain at least 3°C above the dew point.

For proper application the temperature of the product itself should be above +15°C during mixing and application. Good ventilation and sufficient air movement is required in confined areas during application and drying.

Note! There is a natural tendency of this coating to chalk, discolor or yellow unevenly. It is recommended to use polyurethane topcoat when there are high aesthetical requirements on color appearance.

**Mixing components**

First stir base and hardener separately. The correct proportions of base and hardener must be mixed thoroughly before use. Use power mixer for mixing. Insufficient mixing or incorrect mixing ratio will result in uneven drying of the surface and weaken the properties of the coating.

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| | |
|---|---|
| **Application** | For airless spraying, the product is thinned approximately 0–20%. Recommended nozzle tip is 0.015"–0.021" and pressure 120–180 bar. Spray angle shall be chosen according to the shape of the object.<br><br>For brush application (small areas) the product should be thinned according to the circumstances. |
| **Thinners** | Thinner 1031 |
| **Cleaning of equipment** | Thinner 1031 |
| **VOC** | The Volatile Organic Compounds amount is 330 g/litre of paint mixture.<br>VOC content of the paint mixture (thinned 20% by) volume is 430 g/l.<br>VOC 2004/42/EC (cat A/j) 500 g/l (2010) |
| **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.<br>A health and safety data sheet is available on request from Tikkurila Oyj.<br><br>**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 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<br>Heidehofintie 2<br>FI-01300 Vantaa | |
| 14 | |
| 0809-CPD-0773 | |
| TIK-0161-5001 | |
| 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 | F(NPD) |
| 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 |