

# Temadur 90

## DESCRIPTION

A two-component, high gloss polyurethane paint, hardener aliphatic isocyanate.

## PRODUCT FEATURES AND RECOMMENDED USES

- Forms a durable, easy-to-clean and non-chalking topcoat with outstanding gloss and colour retention. The paint has an almost unlimited range of colors, including metallic effects.
- Outstanding resistance to weathering and abrasion makes the product a very good solution for original equipment manufacturing, such as agricultural machinery and haulage equipment.
- Temadur 90 can be used for interior wooden surfaces, e.g. metallic shades kitchen doors.
- Recommended to be used as a glossy decorative finishing coat for epoxy systems on a variety of substrates such as steel, aluminium, concrete etc. exposed to severe weathering and/or chemical stress.
- Due to CE marking can also be used on top of coating systems used for concrete surfaces. See page 3.
- Hardener 008 7594 is recommended to be used in hot and humid conditions.
- The product has been tested for non-contamination of grain cargo at the Newcastle Occupational Health & Hygiene, Great Britain.
- Recommended for painting of transport and haulage equipment, storage tank exteriors, steel framework and other steel structures, machinery and equipment.



## TECHNICAL DATA

**Volume solids** 55±2% (mixture, ISO 3233)

**Weight solids** 68±2% (mixture)

**Specific gravity** 1.2±0.1 kg / l (mixture)

**Mixing ratio**  
 Base 5 parts by volume Temadur 90  
 Hardener 1 part by volume 008 7590 or 008 7594

**Pot life (+23°C)** 4 hours

### Recommended film thicknesses and theoretical coverage

Recommended film thicknesses		Theoretical coverage
wet	dry	
75µm	40µm	13.7 m <sup>2</sup> /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.



# Temadur 90

## Drying time

DFT 40µm	+5°C	+10°C	+23°C	+35°C
Dust dry, after	45min	30min	20min	10min
Touch dry, after	12h	8h	4h	2½h
Recoatable, after	No limitations.			

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

## Gloss

High gloss.

## Color shades

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

# Temadur 90

## APPLICATION INSTRUCTIONS

<b>Surface preparation</b>	<p>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)</p> <p>Concrete surfaces: see the respective data sheets of concrete systems.</p>
<b>Recommended primers</b>	<p>Temacoat GPL-S Primer, Temacoat GF Primer, Temacoat GPL-S MIO, Temacoat RM 40, Temacoat SPA Primer, Temacoat SPA 50, Temamastic PM 100, Temabond ST 200, Temabond ST 300, Temadur 10, Temadur 20, Temaprime GF, Temafloor PU, Temafloor PU-UV, Temafloor P300.</p> <p>Concrete surfaces: Temafloor PU, Temafloor PU-UV or Temafloor P300. More information in the respective data sheets.</p>
<b>Recommended topcoats</b>	<p>Temadur 90, Temadur Clear.</p>
<b>Application conditions</b>	<p>All surfaces must be clean, dry and free from contamination. The temperature of the ambient air, surface and paint should not fall below +5°C 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. Good ventilation and sufficient air movement is required in confined areas during application and drying.</p> <p>Concrete surfaces: see the respective data sheets of concrete systems.</p>
<b>Mixing components</b>	<p>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.</p>
<b>Application</b>	<p>In order to obtain an even, non-porous finish, spray a misty coat: first a thin layer, then let the solvents evaporate for 5–30 minutes and then apply the full coat.</p> <p>For airless spraying, the product is thinned depending on the temperature of the components (base, hardener, thinner) approximately 10–22% to the viscosity 20–25s (DIN4). Recommended nozzle tip is 0.011"–0.013" and pressure 120–160 bar. Spray angle shall be chosen according to the shape of the object.</p> <p>For conventional spraying, the product is thinned to the viscosity 20–25s (DIN4). Recommended nozzle tip is 1.2–1.8 mm and pressure 3–4 bar.</p> <p>For brush application product should be thinned according to the circumstances.</p>
<b>Thinners</b>	<p>Thinner 1048, Thinner 1067, Thinner 1061</p> <p>Thinner 1061 (fast) is also suitable for conventional spraying.</p>
<b>Cleaning of equipment</b>	<p>Thinner 1048, Thinner 1067, Thinner 1061</p>
<b>VOC</b>	<p>The Volatile Organic Compounds amount (ISO 11890) is 400 g/litre of paint mixture. VOC content of the paint mixture (thinned 22% by volume) is 490 g/l. VOC 2004/42/EC (cat A/j) 500 g/l (2010)</p>



# Temadur 90

## 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.

# Temadur 90

## EN 1504-2:2004

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 table 1d in the appendix ZA.

	
0809	
Tikkurila Oyj Heidehofintie 2 FI-01300 VANTAA	
16	
TIK-0115-5001	
EN 1504-2:2004	
Product for protection and repair of concrete structures – Coating.	
Permeability to CO2	sD > 50 m
Capillary absorption and permeability to water	w < 0.1 kg/m <sup>2</sup> ·h <sup>0.5</sup>
Abrasion resistance	< 3000 mg
Reaction to fire	E <sub>fl</sub> (NPD)
Adhesion strength by pull off test	≥ 2,0 N/mm <sup>2</sup>
Release of dangerous substances	NPD
Permeability to water vapour	class I, sD < 5 m