

# PRODUCT DATA SHEET

## SikaCor® Elastomastic TF (formerly Sika® Elastomastic TF)

2-pack-EP-PUR-Hybrid-liquid plastic

### PRODUCT DESCRIPTION

Reaction curing 2-pack epoxy-polyurethane resin for production of tough elastic coating systems on steel and concrete.

### USES

High performance, wear-resistant thin layers, e.g. for steel bridge decks, inspection sidewalks, pavement and bicycle tracks, traffic areas, track plates, that come in contact with ballast, trough bridges, track plates without gravel layers and guard rails.

For adjustment differences to avoid standing water body.

### PROPERTIES

- High performance corrosion protection system
- Mechanical, tough elastic- and impact resistant
- Extremely good adhesion on steel and concrete substrates

### TESTS

#### APPROVAL / STANDARDS

SikaCor Elastomastic TF is approved and certified according to the German regulation TL/TP-KOR Stahlbauten, page 84 appendix for riveted and welded steel bridges with and without ballast.

Approved according to ZTV-ING, part 7, section 5 (additional technical contract conditions and guidelines and production of reaction resin based thin layers on steel.

For use on concrete bridges with ballast an approval of the TU München is available.

For the use as an anti-slip-finish, there is the test report P 7460 available.

### PRODUCT DATA

#### COLOUR SHADES

SikaCor Elastomastic TF: Dust grey, approx. RAL 7037, mat. no. 684.33

Sikafloor-359 N: Variety of colours

Slight colour deviations are possible due to raw material characteristics.

<b>PACKAGING</b>	Sikafloor-156:	20, 10 and 2.5 kg net.
	SikaCor Elastomastic TF:	20 kg net.
	SikaCor HM Primer:	30 kg net.
	SikaCor-277:	10 kg net.
	Sikafloor-359 N:	32.5 kg net.

**SHELF LIFE** In original sealed containers in a cool and dry environment: 2 years

## SYSTEMS

**COATING SYSTEMS**

1 x primer coat (SikaCor HM Primer, SikaCor-277, Sikafloor-156):  
 1-2 x SikaCor Elastomastic TF 1:1 + quartz sand 0.4 - 0.7 mm  
 Blinded in excess with quartz sand 0.7 - 1.2, layer thickness per coating  
 3 - 6 mm  
 If necessary, seal with 1 x Sikafloor-359 N  
 Test report slip resistance and extrusion R12/V8 resp. R13/V10 is available  
 Film thickness up to 6 mm SikaCor Elastomastic TF can be achieved in only  
 one step. When applying 2 layer systems the 1<sup>st</sup> layer has to be blinded  
 with quartz sand 0.4 - 0.7 mm. Before applying the 2<sup>nd</sup> layer the non-  
 adherent bonded quartz sand has to be brushed off. For slope surfaces,  
 0.5 - 1.5% by weight Extender T (related to ready mixed material) must be  
 added to prevent sagging; the dosage depends on the ambient and mater-  
 ial temperature.

**COATING SYSTEMS/  
 MATERIAL CONSUMPTION  
 FOR THIN LAYERS ON STEEL  
 ACCORDING TO ZTV-ING, PART 7,  
 CHAPTER 5**

	Inspection sidewalks, pavement and bicycle tracks	Roadways
Primer coat: Theoretical material consumption:	SikaCor HM Primer approx. 0.2 kg/m <sup>2</sup>	
Top coat:	SikaCor Elastomastic TF	
Film thickness:	≥ 4 - 6 mm	≥ 6 - 10 mm
Mixing ratio *1) binder/addition:	1 : 1 *1)	
Addition and blinding material:	0.7 - 1,2 mm *2) quartz sand	2 - 3 mm *3) Durop *4)
Theoretical material consumption per mm layer thickness::	approx. 0.7 kg/m <sup>2</sup> binder <u>approx. 0.7 kg/m<sup>2</sup> addition</u> approx. 1.4 kg/m <sup>2</sup> material	approx. 0.65 kg/m <sup>2</sup> binder approx. 0.65 kg/m <sup>2</sup> addition approx. 1.30 kg/m <sup>2</sup> material
Material consumption blinding material:	approx. 6 kg/m <sup>2</sup>	approx. 8 kg/m <sup>2</sup>
Coloured top sealer (optional):	1 x Sikafloor-359 N approx. 0.,65 - 0.75 kg/m <sup>2</sup>	

\*1) If application temperatures are lower than 15°C the addition of aggregate can be reduced down to a ratio of 1 : 0.7.

\*2) 2 layer system: The aggregate for mixing the 1<sup>st</sup> and 2<sup>nd</sup> layer and for blinding the 1<sup>st</sup> layer is quartz sand (not in excess) 0.4 - 0.7 mm. The 2<sup>nd</sup> layer has to be blinded with quartz sand 0.7 - 1.2 mm.

\*3) 2 layer system: The aggregate for mixing the 1<sup>st</sup> and 2<sup>nd</sup> layer and for blinding the 1<sup>st</sup> layer is Durop 1/2 (not in excess). The 2<sup>nd</sup> layer has to be blinded with Durop 2/3.

\*4) Source of Durop: Korodur International GmbH, 92224 Amberg, info@korodur.de

**COATING SYSTEM FOR CONCRETE BRIDGES**

2 x Sikafloor-156, first application step has to be blinded with quartz sand 0.4 - 0.7 mm.  
1 x SikaCor Elastomastic TF on horizontal areas:  
5 - 6 mm, on vertical areas: 3 mm.

**MATERIAL CONSUMPTION FOR CONCRETE**

System	Product	Material consumption
Primer coat	2 x Sikafloor-156 First application has to be Blinded with quartz sand 0.4 - 0.7 mm	approx. 0.4 kg/m <sup>2</sup> each application step approx. 1.2 kg/m <sup>2</sup>
Top coat	1 x SikaCor Elastomastic TF Minimum 3 mm Aggregate: quartz sand 0.4 - 0.7 mm Blinding material: quartz sand 0.4 - 0.7 mm	0.8 kg/m <sup>2</sup> binder 0.8 kg/m <sup>2</sup> aggregate approx. 1.6 kg/m <sup>2</sup> material per 1 mm dry film thickness approx. 6.0 kg/m <sup>2</sup>
Coloured top sealer (optional)	1 x Sikafloor-359 N	approx. 0.65 - 0.75 kg/m <sup>2</sup>

**COATING SYSTEM / MATERIAL CONSUMPTION FOR STEEL BRIDGES WITH AND WITHOUT BALLAST ACCORDING TO ZTV-ING, T4, A3 (BLATT 84 APPENDIX)**Without primer coat:

1 x SikaCor Elastomastic TF on horizontal areas 4 mm, apply the material in 3 mm thickness, material consumption 4 kg/m<sup>2</sup>.

Blind with quartz sand 0.4 - 0.7 in excess.

1 x SikaCor Elastomastic TF on vertical areas 2 mm, apply material in 1 - 2 application steps by adding Stellmittel T 2 - 3% by weight, material consumption 1.2 kg/m<sup>2</sup> each.

Blind with quartz sand 0.4 - 0.7 in excess after each application step.

With primer coat:

1 x SikaCor-277, material no. 684.24 approx. 300 µm. Blind with quartz sand 0.4 - 0.7 mm, in excess.

1 x SikaCor Elastomastic TF for horizontal areas 4 mm, for vertical areas 2 mm. Blind with quartz sand in excess. Material consumption and mixing ratio as per previous tables.

**SURFACE PREPARATION**Steel:

Blast-cleaning Sa 2 ½ according to EN ISO 12944, part 4.

Free from dust, oil and grease

Concrete:

The substrate must be sufficient strength (min. compressive strength 25 N/mm<sup>2</sup>). The surface must be even, fine gripping, dense, dry (substrate moisture < 4 CM%) and free from loose and friable particles. Friable layers and oily contamination must be removed mechanically, e.g. by blasting or milling.

**TECHNICAL DATA****MIXING RATIO**

(COMPONENTS A : B)

**By weight**

SikaCor Elastomastic TF	40 : 60
SikaCor-277:	80 : 20
SikaCor HM Primer:	90 : 10
Sikafloor-156:	75 : 25
Sikafloor-359 N:	78 : 22

Product Data Sheet

SikaCor® Elastomastic TF  
(formerly Sika® Elastomastic TF)

05.03.2014, Revision\_01

DS-Code: 1625

English

Corrosion Protection

**TECHNICAL DATA**

Density without aggregate:	Approx. 1.2 kg/l
Density with aggregate:	Approx. 1.6 kg/l (0.4-0.7 mm quartz sand)
Volume solids:	Approx. 100%
Elongation at break:	Approx. 40% acc. DIN 53504
Tensile strength:	Approx. 6,5 N/mm <sup>2</sup>
Shore-A-hardness:	> 90

**RESISTANCE**CHEMICAL RESISTANCE

Water, see water, sewage water, thinned anorganic acids and bases, salt, detergents, grease, oil and short term resistant to motor fuel and solvents.

TEMPERATURE RESISTANCE

Dry heat: up to + 100°C, short term up to approx. + 250°C

Humid heat: depends on the medium, request is necessary

**HINTS OF APPLICATION****MIXING INSTRUCTIONS**

Stir component A very thoroughly using an electric mixer (start slowly, then increase up to approx. 300 rpm). Add component B carefully and mix both components very thoroughly (including sides and bottom of the container). Mix for at least 3 minutes until a homogeneous mixture is achieved. Fill mixed material into clean container and mix again shortly as described above. During mixing and handling of the materials always wear protective goggles, suitable gloves and other protective clothings.

**APPLICATION METHOD**

SikaCor Elastomastic TF by usage a trowel, kaupp trowel, squeegee, serrated trowel or similar.

Overroll the freshly applied layer with a spike roller and disperse with quartz sand after approx. 15 minutes.

**Do not add thinner!**

**APPLICATION TEMPERATURE AND POTLIFE**

	Application temperature (material- and coating surface)		Potlife at		
	Min.	Max.	+ 10°C	+ 20°C	+ 30°C
SikaCor HM Primer	+ 5°C	+ 40°C	12 h	8 h	5 h
Sikafloor-156	+ 10°C	+ 30°C	1 h	30 min.	15 min.
SikaCor Elastomastic TF	+ 10°C	+ 40°C	1 ½ h	1 h	30 min.
Sikafloor-359 N	+ 10°C	+ 30°C	40 min.	25 min.	15 min.

**APPLICATION CONDITIONS**

Relative humidity: Max. 85 %, expect the surface temperature is significantly higher than the dew point temperature, it shall be at least 3 K above dew point.

**DRYING TIMES**

SikaCor Elastomastic TF	+ 10°C after	+15°C after	+ 20°C after	+ 30°C after
Ready for food traffic	approx. 48 h	approx. 20 h	approx. 12 h	approx. 6 h
Fully cured	approx. 60 h	approx. 36 h	approx. 24 h	approx. 12 h

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**WAITING TIME BETWEEN COATS**

Between SikaCor HM Primer and SikaCor Elastomastic TF:

Minimum 1 day. Maximum 1 month.

Primed once again with 1 x SikaCor HM Primer by long waiting time.

Between Sikafloor-156 and SikaCor Elastomastic:

Minimum 8 hours at + 20°C. Maximum 2 days.

Between SikaCor-277 and SikaCor Elastomastic TF:

Minimum 1 day at + 20°C. Maximum 1 month.

Between 1<sup>st</sup> and 2<sup>nd</sup> coat of SikaCor Elastomastic TF:

Minimum 1 day. Maximum 3 months.

Between SikaCor Elastomastic TF and Sikafloor-359 N:

Minimum 1 day. Maximum 3 months.

Prior to application of the next coat a through dedusting is necessary.

If the waiting time between the layers of SikaCor Elastomastic TF will be longer as mentioned above, than the coating has to be prepared by blast cleaning before applying SikaCor Elastomastic TF again.

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**FINAL DRYING TIME**

Fully cured after 7 days at + 20°C

Ballast can be placed after 3 days

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**CLEANING OF EQUIPMENT**

With Sika Thinner EG or SikaCor Cleaner

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**IMPORTANT NOTICE****DIRECTIVE 2004/42/EC  
(DECOPAINT)**

For the product category IIA / j, Type Sb, the maximum permissible content of VOC according to the EU-Directive 2004/42/EC is 500 g/litre (limit 2010).

The maximum VOC-value of SikaCor Elastomastic TF, SikaCor HM Primer, SikaCor-277 is below 500 g/litre.

**CE-MARKING  
DIN EN 13813**

The harmonized European Standard EN 13813 "Screed material and floor screeds – Screed materials – properties and requirements" specifies requirements for screed materials for use in floor construction internally.

Structural screeds or coatings, i.e. those that contribute to the load bearing capacity of the structure, are excluded from this standard.

Resin floor systems as well as cementitious screeds meets the specification. They have to be CE-labelled as per Annex ZA. 3, Tables ZA 1.1 or 1.5 and ZA 3.3 and fulfil the requirements of the given mandate of the Construction Products Directive (89/106).

**CE-MARKING  
DIN EN 1504-2**

The harmonized European Standard EN 1504-2 "Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality, control and evaluation of conformity – Part 2: Surface protection systems for concrete" gives specifications for products and systems based on methods "hydrophobic impregnation", "impregnation" and "coating" for the various principles presented under 1504-9.

For flooring systems not dedicated to protect or reinstate the integrity of a concrete structure, EN 13813 applies. Products acc. EN 1504-2 used as flooring systems with mechanical loads also must fulfil EN 13813.

Further details to CE-marking can be obtained from the technical information document "Sika Produkte und Systeme nach DIN EN 1504-2".

**VALUE BASE**

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

**LOCAL RESTRICTIONS**

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

**HEALTH AND SAFETY INFORMATION****GISCODE: PU 40**

This coding enables additional information and help with the creation of operating instructions (WINGIS online) to be obtained on the BG Bau service pages ([www.gisbau.de](http://www.gisbau.de)).

Information on the safe handling of chemical products, as well as the essential physical, safety-related, toxicological and ecological data can be found in the current safety data sheets. Observe all relevant regulations, e.g. the hazardous substances act. Further notes and information data sheets on product safety and disposal can be found on the Internet at [www.sika.de](http://www.sika.de).

**LEGAL NOTES**

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. The most recent product data sheet applies. This can be requested from us or is available to download at [www.sika.de](http://www.sika.de). Please check availability of local product data sheet at your local website. In cases of doubt the German text is valid.

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