



# KÖSTER TPO 1.8

Technical Data Sheet RT 818

Issued: 2016-03-03

EPD-KBC-20160014-IBC1-DE Environmental Product Declaration according to the ISO 14025 and EN 15804

Official Test Report according to 1200/057/15 DIN EN 13956 MPA Braunschweig, Official Test Report according to 5278/015/14 DIN EN 13967 MPA Braunschweig, Certificate of conformity of the factory production control 0761-CPR-0422 MPA Braunschweig, Fish test A14-02548 BMG Zürich, Official Test Report according to ETAG 006 4/2015 I.F.I. Aachen

## Polyolefin based waterproofing membrane with centrally embedded glass fiber mesh

### Features

- uniform material quality (no difference between upper and lower side)
- homogeneous seam bonding with hot air welding
- temperature and weather resistant
- aging and rot resistant
- high cold flexibility ( $\leq -50^{\circ}\text{C}$ )
- UV-stable
- root resistant
- compatible with bitumen
- compatible with polystyrene
- suitable for all types of insulation
- resistant against normal mechanical stresses
- resistant to microorganisms and rodent attack
- environmentally friendly
- free of softeners and chlorine
- safe for health, water, soil, and plants
- recyclable

### Technical Data

Refer to last page

### Fields of Application

KÖSTER TPO Roofing and Waterproofing Membranes are used to waterproof unventilated and ventilated flat roofs, pitched roofs, green roofs, terraces, balconies, roof gardens and underground garages with ballast and in cases of direct exposure to weathering. KÖSTER TPO Roofing and Waterproofing Membranes can be used for the waterproofing of wet rooms and tanks.

### Application

KÖSTER TPO Roofing and Waterproofing Membranes are used to waterproof unventilated and ventilated flat roofs, pitched roofs, green roofs, terraces, balconies, roof gardens and underground garages with ballast and in cases of direct exposure to weathering. KÖSTER TPO Roofing and Waterproofing Membranes can be used for the waterproofing of wet rooms and tanks.

### Packaging


RT 818 025	1.8 mm x 0.25 m x 20 m
RT 818 035	1.8 mm x 0.35 m x 20 m
RT 818 052	1.8 mm x 0.525 m x 20 m
RT 818 075	1.8 mm x 0.75 m x 20 m
RT 818 105	1.8 mm x 1.05 m x 20 m
RT 818 150	1.8 mm x 1.50 m x 20 m
RT 818 210	1.8 mm x 2.10 m x 20 m

### Related products

KÖSTER Contact Adhesive	Prod. code RT 102
KÖSTER TPO 2.0 U	Prod. code RT 820 U
KÖSTER External Corner light grey 90 degrees	Prod. code RT 901 001
KÖSTER Internal Corner light grey 90 degrees	Prod. code RT 902 001
KÖSTER TPO Metal Composite Sheet Grey	Prod. code RT 910 002

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

KÖSTER BAUCHEMIE AG • Dieselstraße 1-10 • D-26607 Aurich • Tel. 04941/9709-0 • Fax -40 • [info@koester.eu](mailto:info@koester.eu) • [www.koester.eu](http://www.koester.eu)

 <p>0761 15</p>	<p><b>KÖSTER BAUCHEMIE AG</b> Dieselstraße 1-10, 26607 Aurich</p> <p><b>KÖSTER TPO 1.8</b> EN 13956 0761-CPR-0422 EN 13967 0761-CPR-0423</p> <p><b>Polyolefin based waterproofing membrane with centrally embedded glass fiber mesh</b></p>																																																														
Length according to DIN EN 1848-2	20 m <sup>1)</sup>																																																														
Width according to DIN EN 1848-2	2.10; 1.50; 1.05; 0.75; 0.525; 0.35; 0.25 m																																																														
Effective thickness according to DIN EN 1849-2	1.8 mm																																																														
<p><b>Designation</b> according DIN V 20000-201 and DIN V 20000-202</p> <p><b>Color</b></p> <p><b>Visible Defects</b> according to DIN EN 1850-2</p> <p><b>Straightness</b> according to DIN EN 1848-2</p> <p><b>Flatness</b> according to DIN EN 1848-2</p> <p><b>Mass per unit area</b> according to DIN EN 1849-2</p> <p><b>Water tightness</b> according to DIN EN 1928 (Method B)</p> <p><b>Exposure to liquid chemicals, including water</b> according to DIN EN 1847</p> <p><b>Exposure to external fire</b> according to DIN CEN/TS 1187; DIN 4102-7; DIN EN 13501-5</p> <p><b>Reaction to fire</b></p> <p><b>Resistance to hail</b> according to DIN EN 13583</p> <p>Rigid substrate</p> <p>Soft substrate</p> <p><b>Peel resistance of the overlap</b> according to DIN EN 12316-2</p> <p><b>Shear resistance of the overlap</b> according to DIN EN 12317-2</p> <p><b>Water vapor diffusion resistance</b> according to DIN EN 1931</p> <p><b>Tensile characterisitcs</b> according to DIN EN 12311-2</p> <p>Tensile strength</p> <p>Elongation at break</p> <p><b>Resistance to shock loads</b> according to DIN EN 12691</p> <p>Method A</p> <p>Method B</p> <p><b>Resistance to static loading</b> according to DIN EN 12730</p> <p>Method A</p> <p>Method B</p> <p><b>Tear continuation resistance</b> according to DIN EN 12310-2</p> <p><b>Root penetration resistance</b> <sup>4)</sup></p> <p><b>Dimensional stability</b> according to DIN EN 1107-2</p> <p><b>Folding at low temperatures</b> according to DIN EN 495-5</p> <p><b>Behavior under UV irradiation, elevated temperatures, and water</b> according to DIN EN 1297 (1000 h)</p> <p><b>Ozone resistance</b> according to DIN EN 1844</p> <p><b>Exposure to bitumen</b> according to DIN EN 1548</p> <p><b>Durabilty against heat storage</b> according to DIN EN 1296, DIN EN 1928 (Method A)</p> <p><b>Tear resistance (nail shank)</b> according to DIN EN 12310-1</p>	<p><b>DIN EN 13956: 2012</b> <b>waterproofing of flat and sloped roofs. Application by loose laying with ballast, mechanical fastening, full surface, or strip adhesion.</b></p> <p><b>DIN EN 13967:2004</b> <b>Vapor Barrier Type A</b></p> <table border="0"> <tr> <td>DE/E1-FPO-BV-E-GV-1,8</td> <td>BA-FPO-BV-E-GV-1,8</td> </tr> <tr> <td>Standard: light grey <sup>2)</sup></td> <td>light grey</td> </tr> <tr> <td>free from visible defects</td> <td>free from visible defects</td> </tr> <tr> <td>≤ 50 mm</td> <td>≤ 50 mm</td> </tr> <tr> <td>≤ 10 mm</td> <td></td> </tr> <tr> <td>1740 g /m<sup>2</sup></td> <td>1740 g /m<sup>2</sup></td> </tr> <tr> <td>10 kPa/24h watertight</td> <td>400 kPa/72h watertight</td> </tr> <tr> <td>passed (Method B)</td> <td>watertight (Method A)</td> </tr> <tr> <td>Broof(t1)<sup>3)</sup></td> <td>-</td> </tr> <tr> <td>Class E</td> <td>Class E</td> </tr> <tr> <td>≥ 25 m/s</td> <td>-</td> </tr> <tr> <td>≥ 40 m/s</td> <td>-</td> </tr> <tr> <td>Type of failure: 100% C</td> <td>-</td> </tr> <tr> <td>→ No failure in the overlap</td> <td>-</td> </tr> <tr> <td>Failure beyond the overlap</td> <td>Failure beyond the overlap</td> </tr> <tr> <td>μ = 85,000</td> <td>μ = 85,000</td> </tr> <tr> <td>≥ 7 N/mm<sup>2</sup> (Method B)</td> <td>≥ 7 N/mm<sup>2</sup> (Method B)</td> </tr> <tr> <td>≥ 500 % (Method B)</td> <td>≥ 500 % (Method B)</td> </tr> <tr> <td>≥ 750 mm</td> <td>≥ 750 mm</td> </tr> <tr> <td>≥ 1250 mm</td> <td>≥ 1250 mm</td> </tr> <tr> <td>≥ 20 kg</td> <td>≥ 20 kg</td> </tr> <tr> <td>≥ 20 kg</td> <td>≥ 20 kg</td> </tr> <tr> <td>≥ 200 N</td> <td>≥ 200 N</td> </tr> <tr> <td>given</td> <td>-</td> </tr> <tr> <td>≤ -0.2 %</td> <td>≤ -0.2 %</td> </tr> <tr> <td>≤ - 50 °C</td> <td>-</td> </tr> <tr> <td>passed: Level 0</td> <td>-</td> </tr> <tr> <td>passed</td> <td>-</td> </tr> <tr> <td>passed</td> <td>watertight</td> </tr> <tr> <td>watertight</td> <td>watertight</td> </tr> <tr> <td>≤ 600 N</td> <td>≤ 600 N</td> </tr> </table>	DE/E1-FPO-BV-E-GV-1,8	BA-FPO-BV-E-GV-1,8	Standard: light grey <sup>2)</sup>	light grey	free from visible defects	free from visible defects	≤ 50 mm	≤ 50 mm	≤ 10 mm		1740 g /m <sup>2</sup>	1740 g /m <sup>2</sup>	10 kPa/24h watertight	400 kPa/72h watertight	passed (Method B)	watertight (Method A)	Broof(t1) <sup>3)</sup>	-	Class E	Class E	≥ 25 m/s	-	≥ 40 m/s	-	Type of failure: 100% C	-	→ No failure in the overlap	-	Failure beyond the overlap	Failure beyond the overlap	μ = 85,000	μ = 85,000	≥ 7 N/mm <sup>2</sup> (Method B)	≥ 7 N/mm <sup>2</sup> (Method B)	≥ 500 % (Method B)	≥ 500 % (Method B)	≥ 750 mm	≥ 750 mm	≥ 1250 mm	≥ 1250 mm	≥ 20 kg	≥ 20 kg	≥ 20 kg	≥ 20 kg	≥ 200 N	≥ 200 N	given	-	≤ -0.2 %	≤ -0.2 %	≤ - 50 °C	-	passed: Level 0	-	passed	-	passed	watertight	watertight	watertight	≤ 600 N	≤ 600 N
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1) Special lengths available on request 2) Other colors available on request 3) Requirements are met for roofs tested by KÖSTER in Germany. Further information can be requested from KÖSTER. 4) Applies only to green roofs

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