



## KÖSTER TPO 1.8

Technical Data Sheet RT 818

Issued: 2022-05-19

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.J. Aachen

## TPO Roofing and Waterproofing membrane with centrally embedded glass fleece

### Features

- Plastic waterproofing membrane made of high quality thermoplastic polyolefins based on polyethylene (PE)
- central glass fleece insert
- 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

|  |                       |
|--|-----------------------|
| KÖSTER Internal Corner light grey 90 degrees | Prod. code RT 902 001 |
| KÖSTER Round Corner Patch light grey         | Prod. code RT 903 001 |
| KÖSTER TPO Metal Composite Sheet light grey  | Prod. code RT 910 002 |
| KÖSTER TPO Metal Composite Coil light grey   | Prod. code RT 910 030 |
| KÖSTER Wall connection profile 60 mm         | Prod. code RT 919 003 |
| KÖSTER Bar for membrane fastening            | Prod. code RT 919 004 |

### 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 basements, wet rooms and tanks.

### Application

Please refer to the TPO Installation Instructions and the Technical Manual for TPO of KÖSTER BAUCHEMIE AG for correct application of KÖSTER TPO Roofing and Waterproofing Membranes.

### 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 |

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|---|---|---|
| <br><b>0761</b><br><b>15</b> | <b>KÖSTER BAUCHEMIE AG</b><br>Dieselstraße 1-10, 26607 Aurich<br><br><b>KÖSTER TPO 1.8</b><br><b>EN 13956 0761-CPR-0422</b><br><b>EN 13967 0761-CPR-0423</b><br><b>TPO (PE) roofing and waterproofing membrane with central glass fleece insert</b> |   |
| Length according to DIN EN 1848-2   | 20 m (65' 7 3/8")   |   |
| Width according to DIN EN 1848-2 metric   | 2.10; 1.50; 1.05; 0.75; 0.525; 0.35; 0.25 m   |   |
| Width according to DIN EN 1848-2 standard   | 6'10 5/8", 4'11 5/8", 3'5 3/8", 2'5 1/2", 1'8 5/8", 1'1 3/4", 9 7/8"  |   |
| Effective thickness according to DIN EN 1849-2  | 1.8 mm (0.07", 71 mil)  |   |
|   | <b>DIN EN 13956: 2012</b><br><b>waterproofing of flat and sloped roofs. Application by loose laying with ballast or mechanical fastening</b>  | <b>DIN EN 13967:2012</b><br><b>Vapor Barrier Type T</b> |
| <b>Designation</b> according to DIN SPEC 20000-201 and DIN SPEC 20000-202                                     | DE/E1-FPO-BV-E-GV-1,8   | BA-FPO-BV-E-GV-1,8                                      |
| <b>Color</b>  | light grey  | light grey  |
| <b>Visible Defects</b> according to DIN EN 1850-2   | free from visible defects   | free from visible defects                               |
| <b>Straightness</b> according to DIN EN 1848-2  | ≤ 50 mm (1 7/8")  | ≤ 50 mm (1 7/8")  |
| <b>Flatness</b> according to DIN EN 1848-2  | ≤ 10 mm (3/8")  | ≤ 10 mm (3/8")  |
| <b>Mass per unit area</b> according to DIN EN 1849-2  | 1740 g /m <sup>2</sup> (5.7 oz/ft <sup>2</sup> )  | 1740 g /m <sup>2</sup> (5.7 oz/ft <sup>2</sup> )        |
| <b>Water tightness</b> according to DIN EN 1928 (Method B)  | 400 kPa/24h watertight  | 400 kPa/72h watertight                                  |
| <b>Exposure to liquid chemicals, including water</b> according to DIN EN 1847                                 | passed (Method B)   | watertight (Method A)                                   |
| <b>Exposure to external fire</b> according to DIN CEN/TS 1187; DIN 4102-7; DIN EN 13501-5                     | Broof(t1) <sup>1</sup>  | -   |
| <b>Reaction to fire</b> according to EN 13501-1   | Class E   | Class E   |
| <b>Resistance to hail</b> according to DIN EN 13583   |   |   |
| Rigid substrate   | ≥ 25 m/s (56 mph)   | -   |
| Soft substrate  | ≥ 40 m/s (89 mph)   | -   |
| <b>Peel resistance of the overlap</b> according to DIN EN 12316-2   | ≥ 500 N/50 mm (57 lb/in)  | -   |
| <b>Shear resistance of the overlap</b> according to DIN EN 12317-2  | Failure beyond the overlap  | Failure beyond the overlap                              |
| <b>Water vapor diffusion resistance</b> according to DIN EN 1931  | μ = 85,000  | μ = 85,000  |
| <b>Tensile characteristics</b> according to DIN EN 12311-2  |   |   |
| Tensile strength  | ≥ 7 N/mm <sup>2</sup> (Method B) (1015 psi)   | ≥ 7 N/mm <sup>2</sup> (Method B) (1015 psi)             |
| Elongation at break   | ≥ 500 % (Method B)  | ≥ 500 % (Method B)                                      |
| <b>Resistance to shock loads</b> according to DIN EN 12691  |   |   |
| Method A  | ≥ 750 mm (29.5")  | ≥ 750 mm (29.5")  |
| Method B  | ≥ 1250 mm (49.2")   | ≥ 1250 mm (49.2")                                       |
| <b>Resistance to static loading</b> according to DIN EN 12730   |   |   |
| Method A  | ≥ 20 kg (44 lbs)  | ≥ 20 kg (44 lbs)  |
| Method B  | ≥ 20 kg (44 lbs)  | ≥ 20 kg (44 lbs)  |
| <b>Tear continuation resistance</b> according to DIN EN 12310-2   | ≥ 200 N (45 lbs)  | ≥ 200 N (45 lbs)  |
| <b>Root penetration resistance</b> <sup>2)</sup>  | given   | -   |
| <b>Dimensional stability</b> according to DIN EN 1107-2   | ≤ 0.2 %   | ≤ 0.2 %   |
| <b>Folding at low temperatures</b>  | ≤ - 50 °C   | -   |
| according to DIN EN 495-5   |   |   |
| <b>Behavior under UV irradiation, elevated temperatures, and water</b> according to DIN EN 1297 (1000 h)      | passed: Level 0   | -   |
| <b>Ozone resistance</b> according to DIN EN 1844  | passed  | -   |
| <b>Exposure to bitumen</b> according to DIN EN 1548   | passed  | watertight  |
| <b>Durability against heat storage</b> according to DIN EN 1296, DIN EN 1928 (Method A)                       | watertight  | watertight  |

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|   |                     |                     |
|---|---------------------|---------------------|
| <b>Tear resistance (nail shank)</b> according to DIN EN 12310-1 | ≥ 500 N (112.4 lbs) | ≥ 500 N (112.4 lbs) |
|---|---------------------|---------------------|

1) Requirements are met for roofs tested by KÖSTER in Germany. Further information can be requested from KÖSTER. 2) Applies only to green roofs

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