



## KÖSTER ECB 2.0

**Technical Data Sheet RE 820** 

Issued: 2019-10-07

# Ethylene Copolymer Bitumen (ECB) based waterproofing membrane with centrally embedded glass fiber mesh

Features MäSkTER Vapor Barrier FR Prod. code RT 920 075

- 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 (≤ -50°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**

See last page

#### **Fields of Application**

KÖSTER ECB 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 ECB Roofing and Waterproofing Membranes can be used for the waterproofing wet rooms, tanks, waterproofing horizontal and vertical surfaces of structures and/or structural members according to DIN EN 18533.

### Application

For the application of KÖSTER ECB Membranes, please adhere to the KÖSTER Installation Instructions for roofing membranes.

#### Packaging

RE 820 025	2.0 mm x 0.25 m x 20 m
RE 820 035	2.0 mm x 0.35 m x 20 m
RE 820 052	2.0 mm x 0.525 m x 20 m
RE 820 075	2.0 mm x 0.75 m x 20 m
RE 820 105	2.0 mm x 1.05 m x 20 m
RE 820 150	2.0 mm x 1.50 m x 20 m
RE 820 210	2.0 mm x 2.10 m x 20 m

#### Related products

KÖSTER ECB 2.0 U	Prod. code RE 820 052 U
KÖSTER Contact Adhesive	Prod. code RT 102
KÖSTER External Corner black 90	Prod. code RT 901 001 B
degrees	

KÖSTER Internal Corner black 90 Prod. code RT 902 001 B

degrees

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.

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KÖSTER ECB 2.0 1/2



Content   Co					
No.		KÖSTER BAUCHEMIE AG			
En 1995 0761-CPP-0422   Roofing- und Waterproofing membrane from Ethylene-Copolymer-Button and DIN EN 1848-2   20 m²   Stumen with embadded glass fleece   20 m²   Stumen with embadded glass fleec		Dieselstraße 1-10, 26607 Aurich			
En 1995 0761-CPP-0422   Roofing- und Waterproofing membrane from Ethylene-Copolymer-Button and DIN EN 1848-2   20 m²   Stumen with embadded glass fleece   20 m²   Stumen with embadded glass fleec					
Pastic and rubber sheets for roof waterproofing - Plastic sheets for roof waterproof					
Roofing- und Waterproofing membrane from Ethylene-Copolymer-Bittumen with embadded glass fleece   Regilia according DIN EN 1848-2   2, 10; 1,50; 1,05; 0,55; 0,35; 0,25 m					
Length according nach DIN EN 1848-2   20 m²					
Length according nach DIN EN 1848-2   20 m²	15				
Width according DIN EN 1848-2         2,10±1,50±1,05±,075±,0,525±0,35±0,25±m           Nominal thickness DIN EN 1849-2         DIN EN 18956: 2012         DIN EN 13956: 2012           Plastic and rubber sheets for roof waterproofing - Plastic and rubber sheets for roof waterproofing or heat rubber sheets for roof waterproofing or flash flash grade and rubber sheets for roof waterproofing or flash grade flas	Langth according mach DIN EN 1949 2		added glass fleece		
Din En 1396: 2012   Flexible sheets for waterproofing - Plastic and rubber sheets for root waterproofing - Plastic and rubber sheets including plastic and rubber assemint tanking sheet or waterproofing - Plastic and rubber sheets including plastic and rubber assemint tanking sheet or waterproofing - Plastic and rubber sheets including plastic and rubber assemint tanking sheet or waterproofing - Plastic and rubber sheets including plastic and rubber assemint tanking sheet or waterproofing - Plastic and rubber damp proof sheets including water according to DIN En 1848-2   Somm			m		
DIN EN 13956: 2012   Flexible sheets for waterproofing   Plastic and rubber sheets for roof waterproofing   Plastic and rubber sheets including plastic and rubber basement tanking sheet	Nominal thickness DIN EN 1849-2		III		
Flexible sheets for waterproofing - Plastic and rubber sheets for roof waterproofing - Plastic and rubber sheets for roof waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet waterproofing - Plastic and rubber basement tanking sheet waterproofing - Plastic and rubber basement tanking sheet water proofing - Plastic and rubber basement tanking sheet water proofing - Plastic and rubber basement tanking sheet water proofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet water proofing - Plastic and rubber basement tanking sheet water proofing - Plastic and rubber basement tanking sheet water proofing - Plastic and rubber basement tanking sheet water proofing - Plastic and rubber basement tanking sheet water proofing on the plastic and rubber basement tanking sheet water proofing on the plastic and rubber basement tanking sheet water proofing on the plastic and rubber damp proof sheets including sheet water proofing to DIN EN 1850-2 Plastic sheet with plastic and rubber damp proof sheets including sheets which black black Prece of visible defects Prece of visible def	Nominal trickness bit Liv 1043-2	2,0 11111			
Solor   Sible defects according to DIN EN 1849-2   Son mm   Solor mm   So		Flexible sheets for waterproofing - Plastic and rubber sheets for roof	Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic and		
Solor   Sible defects according to DIN EN 1849-2   Son mm   Solor mm   So	<b>Description</b> according to DIN SPEC 20000-201 / 20000-202	DE/E1-ECB-BV-E-GV-2.0	BA-ECB-BV-E-GV-2.0		
Visible defects according to DIN EN 1848-2     Free of visible defects       Geradheit nach to DIN EN 1848-2     50 mm       Area related weight according to DIN EN 1848-2     50 mm       Area related weight according to DIN EN 1928 (Verf. B)     400 kPa/Zh dicht       Reaction to liquid chemicals including water according to DIN EN 1847     400 kPa/Zh dicht       External fire exposure according to DIN EN 17501-5     Broof(It)²²       Reaction to fire according to EN 13501-1     Broof(It)²²       Reasitance to shock loads (Hail) according to DIN EN 13583     Rigid Substrate       Piesible Substrate     ≥ 34 m/s       Peel strength of the overlap seam according to DIN EN 12316-2     ≥ 45 m/s       Weld seam shear resistance according to DIN EN 12311-2     ≥ 45 m/s       Elongation longuidinal/transverse     ≥ 600 % (method B)       Elongation longuidinal/transverse     ≥ 600 % (method B)       Resistance to static loading according to DIN EN 12891     ≥ 20 kg       Method A     ≥ 20 kg     ≥ 20 kg       Method A     ≥ 20 kg     ≥ 20 kg       Method B     ≥ 20 kg     ≥ 20 kg       Resistance to static loading according to DIN EN 12310-2     ≥ 20 kg     ≥ 20 kg       Root penetration resistance according to DIN EN 1297 (1000 h)     ≥ 20 kg     ≥ 20 kg       Dimensional stability according to DIN EN 1844     ≥ 20 kg     ≥ 20 kg	· •	•	· ·		
Geradheit nach to DIN EN 1848-2       ≤ 50 mm       ≤ 50 mm <td>Visible defects according to DIN EN 1850-2</td> <td>Free of visible defects</td> <td>Free of visible defects</td>	Visible defects according to DIN EN 1850-2	Free of visible defects	Free of visible defects		
Area related weight according to DIN EN 1849-2       2010 g /m²       2010 g /m²       2010 g /m²       400 kPa/72 h dicht       passed (Verf. B)         Reaction to I liquid chemicals including water according to DIN EN 1847       Broof(t1)²°       -	ı				
Water tightness according to DIN EN 1928 (Verf. B)   Reaction to liquid chemicals including water according to DIN EN 1847     External fire exposure according to DIN CEN/TS 1187; DIN 4102-7; DIN EN 13501-5     Reaction to fire according to EN 13501-1     Resistance to shock loads (Hail) according to DIN EN 13583     Rigid Substrate     Flexible Substrate     Fl	Flatness according to DIN EN 1848-2	≤ 10 mm			
Reaction to liquid chemicals including water according to DIN EN 1847       passed (Verf. B)       watertight (Verf. A)         External fire exposure according to DIN CEN/TS 1187; DIN 4102-7; DIN EN 13501-5         Reaction to fire according to EN 13501-1         Reaction to fire according to EN 13501-1         Resistance to shock loads (Hail) according to DIN EN 13583         Rigid Substrate       1 (Class E         Peel strength of the overlap seam according to DIN EN 12317-2       2 45 m/s         Veld seam shear resistance according to DIN EN 12317-2       Failure outside of the seam         Water vapor diffusion resistance according to DIN EN 12311-2       Failure outside of the seam         Tensile strength longitudinal/transverse       2 6 N/mm² (method B)         Elongation longiudinal/transverse       2 6 N/mm² (method B)         Resistance to shock loads according to DIN EN 12691       2 900 mm         Method A       2 900 mm         Method B       2 900 mm         12730       2 20 kg         Method B       2 20 kg         12 continuation resistance according to DIN EN 12310-2       2 20 kg         Root penetration resistance according to DIN EN 1844       2 20 kg         Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)       2 20 kg	Area related weight according to DIN EN 1849-2	2010 g /m <sup>2</sup>	2010 g /m <sup>2</sup>		
To Din En 1847   External fire exposure according to Din CEN/TS 1187;	Water tightness according to DIN EN 1928 (Verf. B)	400 kPa/72h dicht	400 kPa/72h dicht		
External fire exposure according to DIN CEN/TS 1187; DIN $1027$ ; DIN EN 13501-5 Reaction to fire according to EN 13501-1 Resistance to shock loads (Hail) according to DIN EN 13583 Rigid Substrate   245 m/s   245 m/s   240 m/s		passed (Verf. B)	watertight (Verf. A)		
Reaction to fire according to EN 13501-1       Class E       Class E         Resistance to shock loads (Hail) according to DIN EN 13583 Rigid Substrate       ≥ 34 m/s       -         Flexible Substrate       ≥ 45 m/s       -         Peel strength of the overlap seam according to DIN EN 12317-2       Wald seam shear resistance according to DIN EN 12317-2       Failure outside of the seam μ = 175.000       Failure outside of the seam μ = 175.000         Beongation at break according to DIN EN 12311-2       Failure outside of the seam μ = 175.000       μ = 175.000         Tensile strength longitudinal/transverse       ≥ 6 N/mm² (method B)       ≥ 6 N/mm² (method B)         Elongation longiudinal/transverse       ≥ 600 % (method B)       ≥ 600 % (method B)         Resistance to shock loads according to DIN EN 12691       ≥ 900 mm       ≥ 900 mm         Method B       ≥ 900 mm       ≥ 1500 mm         Resistance to static loading according to nach DIN EN       ≥ 20 kg       ≥ 20 kg         12730       ≥ 20 kg       ≥ 20 kg       ≥ 20 kg         Pear continuation resistance according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 1495-5       ≤ 0,25 %       ≤ 0,25 %         Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)       passed: Cracking stage 0       -         Ozone resistance according to DIN EN 1844       pensed	External fire exposure according to DIN CEN/TS 1187; DIN	Broof(t1) <sup>2)</sup>	-		
Resistance to shock loads (Hail) according to DIN EN 13583 Rigid Substrate Flexible Substrate Peel strength of the overlap seam according to DIN EN 12317-2 Weld seam shear resistance according to DIN EN 12317-2 Weld seam shear resistance according to DIN EN 12317-2 Weld seam shear resistance according to DIN EN 1931 Elongation at break according to DIN EN 12311-2 Tensile strenght longitudinal/transverse Elongation longiudinal/transverse Elongation not break according to DIN EN 12691 Method A  Method B  Pesistance to static loading according to nach DIN EN 12730 Method B  Pesistance according to DIN EN 12310-2 Root penetration resistance according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 1845-5 Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)  Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DI		Class	Classa E		
Rigid Substrate   2   34 m/s   2   45 m/s   5   45 m/s   5 m		Class E	Classe E		
Flexible Substrate  Peel strength of the overlap seam according to DIN EN 12316-2  Weld seam shear resistance according to DIN EN 12317-2  Water vapor diffusion resistance according to DIN EN 12311-2  Tensile strength longitudinal/transverse Elongation at break according to DIN EN 12311-2  Tensile strength longitudinal/transverse Elongation longiudinal/transverse Elongation longiudinal/transverse Elongation longiudinal/transverse Resistance to shock loads according to DIN EN 12691  Method A  Method B  Resistance to static loading according to nach DIN EN 12730  Method A  Method B  Tear continuation resistance according to DIN EN 12310-2 Root penetration resistance 3  Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1928 (Verf. A)   > 45 m/s  > 400 N/50 mm  - Tailure outside of the seam		> 34 m/s	_		
Peel strength of the overlap seam according to DIN EN 12316-2   Weld seam shear resistance according to DIN EN 12317-2   Water vapor diffusion resistance according to DIN EN 1931   Elongation at break according to DIN EN 12311-2   Tensile strength longitudinal/transverse   Elongation longiudinal/transverse   Elongation longiudinal/transverse   Elongation longiudinal/transverse   Essistance to shock loads according to DIN EN 12691   Method A   Method B   Essistance to static loading according to nach DIN EN 12730   Method A   Method B   Essistance to static loading according to nach DIN EN 12730   Method A   Esponsor of the seam   $\mu = 175.000$   $\mu = 175.000$					
12316-2   Weld seam shear resistance according to DIN EN 12317-2   Water vapor diffusion resistance according to DIN EN 1931   Elongation at break according to DIN EN 12311-2   Tensile strenght longitudinal/transverse   Elongation longiudinal/transverse   Elongation longiudinal/transverse   Elongation bongiudinal/transverse   Elongation bongiudinal/			-		
Water vapor diffusion resistance according to DIN EN 1931 Elongation at break according to DIN EN 12311-2 Tensile strenght longitudinal/transverse Elongation longiudinal/transverse Resistance to shock loads according to DIN EN 12691 Method A Method B≥ 6 N/mm² (method B) ≥ 600 % (method B)Method A Method B 12730≥ 900 mm ≥ 1500 mm≥ 900 mm ≥ 1500 mmResistance to static loading according to nach DIN EN 12730≥ 20 kg 					
Water vapor diffusion resistance according to DIN EN 1931 Elongation at break according to DIN EN 12311-2 Tensile strenght longitudinal/transverse Elongation longiudinal/transverse Resistance to shock loads according to DIN EN 12691 Method A Method B≥ 6 N/mm² (method B) ≥ 600 % (method B)Method A Method B 12730≥ 900 mm ≥ 1500 mm≥ 900 mm ≥ 1500 mmResistance to static loading according to nach DIN EN 12730≥ 20 kg ≥ 20 kg ≥ 20 kg ≥ 250 N given≥ 20 kg ≥ 250 N givenTear continuation resistance according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 1297 (1000 h) Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1548 Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)μ = 175.000 46 N/mm² (method B) 2 6 N/mm² (method B) 2 6 N/mm² (method B) 2 600 % (method B)μ = 175.000 20 % (method B)≥ 60 N/mm² (method B)≥ 6 N/mm² (method B)≥ 600 % (method B)≥ 900 mm ≥ 900 mm≥ 900 mm≥ 20 kg ≥ 20 kg ≥ 250 N given ≤ 0,25 % ≤ -50 °C - 0 - 0	Weld seam shear resistance according to DIN EN 12317-2	Failure outside of the seam	Failure outside of the seam		
Elongation at break according to DIN EN 12311-2 Tensile strengtht longitudinal/transverse Elongation longiudinal/transverse Esistance to shock loads according to DIN EN 12691 Method A Method B Resistance to static loading according to nach DIN EN 12730 Method A Method B Tear continuation resistance according to DIN EN 12310-2 Root penetration resistance 3) Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 495-5 Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h) Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1548 Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  ≥ 6 N/mm² (method B) ≥ 6 N/mm² (method B) ≥ 6 N/mm² (method B) ≥ 600 % (method B)  ≥ 900 mm ≥ 1500 mm  ≥ 1500 mm  ≥ 1500 mm  ≥ 20 kg ≥ 20 kg ≥ 20 kg ≥ 250 N given - 0,25 % ≤ 0,25 % ≤ 0,25 % ≤ 0,25 % − 0 passed: Level 0  - passed: Cracking stage 0 passed: Cracking stage 0 passed watertight		μ = 175.000	$\mu = 175.000$		
Elongation longiudinal/transverse Resistance to shock loads according to DIN EN 12691 Method A Method B Resistance to static loading according to nach DIN EN 12730 Method A Method B Tear continuation resistance according to DIN EN 12310-2 Root penetration resistance 3) Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1844 Durability against heat storage to DIN EN 1928 (Verf. A)  ≥ 600 % (method B)  ≥ 900 mm ≥ 1500 mm ≥ 1500 mm  ≥ 20 kg ≥ 20 kg ≥ 20 kg ≥ 250 N given − − 0,25 % ≤ -50 ° C − − 0 passed: Level 0  − − − − − − − − − − − − − − − − − −		·	·		
Resistance to shock loads according to DIN EN 12691       ≥ 900 mm       ≥ 900 mm       ≥ 900 mm         Method B       ≥ 1500 mm       ≥ 1500 mm       ≥ 1500 mm         Resistance to static loading according to nach DIN EN 12730         Method A       ≥ 20 kg       ≥ 20 kg         Method B       ≥ 20 kg       ≥ 20 kg         Tear continuation resistance according to DIN EN 12310-2       ≥ 20 kg       ≥ 250 N         Root penetration resistance ³)       given       -         Dimensional stability according to DIN EN 1107-2 längs/quer       ≤ 0,25 %       ≤ 0,25 %         Folding at low temperatures according to DIN EN 495-5       passed: Level 0       -         Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)       passed: Cracking stage 0       -         Ozone resistance according to DIN EN 1844       passed: Cracking stage 0       -         Behavior upon exposure to bitumen according to DIN EN 1548       passed: Cracking stage 0       -         Durability against heat storage       watertight       watertight         to DIN EN 1296, DIN EN 1928 (Verf. A)       watertight       watertight		≥ 6 N/mm² (method B)	≥ 6 N/mm² (method B)		
Method A       ≥ 900 mm       ≥ 900 mm       ≥ 900 mm         Method B       ≥ 1500 mm       ≥ 1500 mm         Resistance to static loading according to nach DIN EN 12730         Method A       ≥ 20 kg       ≥ 20 kg         Method B       ≥ 20 kg       ≥ 20 kg         Tear continuation resistance according to DIN EN 12310-2       ≥ 250 N       ≥ 250 N         Root penetration resistance 3)       given       -         Dimensional stability according to DIN EN 1107-2 längs/quer       ≤ 0,25 %       ≤ 0,25 %         Folding at low temperatures according to DIN EN 495-5       ≤ -50 °C       -         Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)       passed: Level 0       -         Ozone resistance according to DIN EN 1844       passed: Cracking stage 0       -         Behavior upon exposure to bitumen according to DIN EN 1548       passed: Cracking stage 0       -         Durability against heat storage       watertight       watertight         to DIN EN 1296, DIN EN 1928 (Verf. A)       watertight		≥ 600 % (method B)	≥ 600 % (method B)		
Method B Resistance to static loading according to nach DIN EN 12730 Method A Method B Tear continuation resistance according to DIN EN 12310-2 Root penetration resistance ³¹ Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 495-5 Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h) Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1548 Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  ≥ 20 kg ≥ 20 kg ≥ 20 kg ≥ 250 N given - ≤ 0,25 % ≤ - 50 ° C passed: Level 0  - passed: Cracking stage 0 passed: Cracking stage 0 passed watertight					
Resistance to static loading according to nach DIN EN 12730  Method A  Method B  Tear continuation resistance according to DIN EN 12310-2  Root penetration resistance ³)  Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 495-5  Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)  Ozone resistance according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1548  Durability against heat storage to DIN EN 1928 (Verf. A)  ≥ 20 kg ≥ 20 kg ≥ 20 kg ≥ 250 N given -  ≤ 0,25 % ≤ - 50 ° C passed: Level 0  -  passed: Cracking stage 0 passed: Cracking stage 0 passed watertight  watertight					
Method A  Method B  Tear continuation resistance according to DIN EN 12310-2  Root penetration resistance 3)  Dimensional stability according to DIN EN 1107-2 längs/quer  Folding at low temperatures according to DIN EN 495-5  Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)  Ozone resistance according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1548  Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  ≥ 20 kg ≥ 250 N given		≥ 1500 mm	≥ 1500 mm		
Method A       ≥ 20 kg       ≥ 20 kg         Method B       ≥ 20 kg       ≥ 20 kg         Tear continuation resistance according to DIN EN 12310-2       ≥ 250 N       ≥ 250 N         Root penetration resistance ³)       given       -         Dimensional stability according to DIN EN 1107-2 längs/quer       ≤ 0,25 %       ≤ 0,25 %         Folding at low temperatures according to DIN EN 495-5       ≤ -50 °C       -         Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)       passed: Level 0       -         Ozone resistance according to DIN EN 1844       passed: Cracking stage 0       -         Behavior upon exposure to bitumen according to DIN EN 1548       passed: Watertight       watertight         Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)       watertight       watertight					
Method B Tear continuation resistance according to DIN EN 12310-2 Root penetration resistance 3) Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 495-5 Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h) Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1548 Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  ≥ 20 kg ≥ 250 N given - 0 0,25 % ≤ - 50 ° C passed: Level 0 - 0 passed: Cracking stage 0 passed: Cracking stage 0 passed watertight watertight		> 20 kg	> 20 kg		
Tear continuation resistance according to DIN EN 12310-2 Root penetration resistance 3)  Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 495-5 Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)  Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1548  Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  ≥ 250 N given - 0 0,25 % ≤ - 50 ° C passed: Level 0 - 0 passed: Cracking stage 0 passed: Cracking stage 0 passed watertight  watertight			S .		
Root penetration resistance <sup>3)</sup> Dimensional stability according to DIN EN 1107-2 längs/quer Folding at low temperatures according to DIN EN 495-5 Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h) Ozone resistance according to DIN EN 1844 Behavior upon exposure to bitumen according to DIN EN 1548 Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  given  - 0,25 % ≤ 0,25 % - 0passed: Level 0 - 0passed: Cracking stage 0 passed: Cracking stage 0 passed: Watertight watertight			S .		
Dimensional stability according to DIN EN 1107-2 längs/quer       ≤ 0,25 %       ≤ 0,25 %         Folding at low temperatures according to DIN EN 495-5       ≤ -50 ° C       -         Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)       -       -         Ozone resistance according to DIN EN 1844       passed: Cracking stage 0       -         Behavior upon exposure to bitumen according to DIN EN 1548       passed: Cracking stage 0       -         Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)       watertight       watertight			- 20014		
Folding at low temperatures according to DIN EN 495-5  Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)  Ozone resistance according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1548  Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  ≤ - 50 ° C passed: Level 0 - passed: Cracking stage 0 passed watertight  watertight  watertight		, ~	≤ 0.25 %		
Behavior under UV irradiation, elevated temperatures, and water according to DIN EN 1297 (1000 h)  Ozone resistance according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1548  Durability against heat storage watertight  to DIN EN 1296, DIN EN 1928 (Verf. A)  passed: Level 0  - passed: Level 0  - passed: Level 0  - passed: Level 0  - watertight  watertight		I	- /= = · · ·		
water according to DIN EN 1297 (1000 h) Ozone resistance according to DIN EN 1844  Behavior upon exposure to bitumen according to DIN EN 1548  Durability against heat storage to DIN EN 1296, DIN EN 1928 (Verf. A)  passed: Cracking stage 0 passed watertight  watertight	, °		-		
Ozone resistance according to DIN EN 1844 passed: Cracking stage 0 pass		-			
1548  Durability against heat storage watertight watertight to DIN EN 1296, DIN EN 1928 (Verf. A)	` ,	passed: Cracking stage 0	-		
Durability against heat storage watertight watertight to DIN EN 1928 (Verf. A)	Behavior upon exposure to bitumen according to DIN EN	passed	watertight		
to DIN EN 1296, DIN EN 1928 (Verf. A)					
· · · ·		watertight	watertight		
Tear resistance (nail shaft) to DIN EN 12310-1   ≥ 500 N ≥ 500 N	l '				
1) Special lengths available on request 2) Requirements are met for roofs tested by KÖSTER in Germany. Further information can be requested					

<sup>1)</sup> Special lengths available on request 2) Requirements are met for roofs tested by KÖSTER in Germany. Further information can be requested from KÖSTER 3) Applies only to green roofs

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.

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KÖSTER ECB 2.0 2/2