KÖSTER
Waterproofing Systems

KÖSTER ECB 2.0 F

Technical Data Sheet RE 820 F
Issued: 2019-10-07

Ethylene Copolymer Bitumen based waterproofing membrane with centrally embedded glass fiber mesh and fleece laminated underside

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 (≤ -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
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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 of wet rooms and tanks.

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

Packaging

RE 820 052 F	2.0 mm x 0.525 m x 20 m
RE 820 105 F	2.0 mm x 1.05 m x 20 m
RE 820 150 F	2.0 mm x 1.50 m x 20 m
RE 820 210 F	2.0 mm x 2.10 m x 20 m

Related products

KÖSTER ECB 2.0 U	Prod. code RE 820 052 U
KÖSTER PUR Membrane Adhesive	Prod. code RT 101
KÖSTER 2C PUR Membrane Adhesive	Prod. code RT 104 001
KÖSTER External Corner black 90 degrees	Prod. code RT 901 001 B
KÖSTER Internal Corner black 90 degrees	Prod. code RT 902 001 B
KÖSTER TPO Metal Composite Sheet	Prod. code RT 910 002 B
KÖSTER TPO Metal Composite Coil black	Prod. code RT 910 030 B

R - Roofing membranes, roof waterproofing

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Material product description: Ethylen-Copolymerisat-Bitumen (ECB) **Technical Details according to the DIN EN 13956 and DIN V 20000-201**	
Product description:	**KÖSTER ECB F 2.0 F**
Description according to DIN 20000-201	**DE/E1-ECB-BV-E-GV-PV-2,0**
Strip or full surface adhesion	x
Loose laying under ballast and under wear surfaces	x
Mechanically fastened, without ballast	x
Reinforcement	Centrally embedded glass fiber mesh
Lamination	fleece laminated underside
Color	Black
Visible defects	Free of visible defects
Length according to DIN EN 1848-2	20 m [1)]
Width according to DIN EN 1848-2	2100/1500/1050/525 mm
Straightness according to DIN EN 1848-2	≤ 50 mm
Flatness according to DIN EN 1848-2	≤ 10 mm
Area related weight according to DIN EN 1849-2	2010 g /m²
Nominal thickness	3.0 mm
Water tightness according to DIN EN 1928 (method B)	watertight
Reaction to liquid chemicals including water according to DIN EN 1847	passed
External fire exposure according to DIN V ENV 1187; DIN 4102-7; DIN 13501-5	$B_{ROOF}(t1)$ [2)]
Reaction to fire according to DIN EN ISO 11925-2; EN 13501-1	Class E
Resistance to shock loads (Hail) according to DIN EN 13583 - Rigid Substrate - Flexible Substrate	 ≥ 30 m/s ≥ 45 m/s
Peel strength of the overlap seam according to DIN EN 12316-2	Type of failure: 100% C → No failure of the seam
Weld seam shear resistance according to DIN EN 12317-2	Failure outside of the seam
Water vapor diffusion resistance according to DIN EN 1931	S_d = 350 m μ = 175.000
Elongation at break according to DIN EN 12311-2 (method B)	≥ 6 N/mm²
Elongation at break according to DIN EN 12311-2 (method B)	≥ 600 %
Resistance to shock loads according to DIN EN 12691 - Substrate Al Plate (method A) - Substrate EPS (Method B)	 ≥ 900 mm ≥ 1250 mm
Resistance to static loading according toDIN EN 12730 - Substrate EPS (Method A) - Substrate Concrete (Method B)	 ≥ 20 kg (tight) ≥ 20 kg (tight)
Tear continuation resistance according to DIN EN 12310-2	≥ 250 N
Root penetration resistance [3)]	given
Dimensional stability according to DIN EN 1107-2	≤ 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

1) 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

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