

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-17/0025
of 18 August 2017

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

KÖSTER NB 1 Grau

Product family
to which the construction product belongs

Mineral non-flexible sealing slurry kit on the basis of
cement

Manufacturer

Köster Bauchemie AG
Dieselstraße 3-10
26607 Aurich
DEUTSCHLAND

Manufacturing plant

Köster Bauchemie AG
Dieselstraße 3-10
26607 Aurich
DEUTSCHLAND

This European Technical Assessment
contains

8 pages including 3 annexes which form an integral part
of this assessment

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

European Assessment Document (EAD)
030092-00-0605

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Specific Part

1 Description of the product

The one-component non-flexible mineral sealing slurry kit KÖSTER NB 1 grau on the basis of cement referred as mineral sealing slurry consists the following components:

- Primer KÖSTER Polysil TG 500 (only for use scenario b))
- Mineral sealing slurry KÖSTER NB 1 Grau
- Mortar for sealing edges and corners KÖSTER Sperrmörtel

The mineral sealing slurry is delivered as powder which will be mixed with water on site to a smooth paste.

Annex A shows the principles and performances of the product.

2 Specification of the intended use in accordance with the applicable European assessment Document

The mineral sealing slurry is used to seal construction parts against soil moisture and pressing water on mineral substrates against the penetration of water.

There are the following use scenarios:

- Use scenario a): Horizontal waterproofing in and under walls
 Waterproofing of construction parts on the side of water against soil moisture
 Waterproofing of construction parts against pressing water from the inside (water tank, water storage tanks) for the admissible water pressure of 3,0 m
- Use scenario b): Negative side water proofing against soil moisture and ground water, usually used as material for reconstruction and repair for the admissible water pressure of 20,0 m.

The performances given in Section 3 are only valid if the mineral sealing slurry is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the product of 10 years for use scenario a) and 5 years for use scenario b). The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	See Annex A1

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content of dangerous substances of the mineral sealing slurry ^{a)}	The product does not contain these dangerous substances actively used (in accordance with Regulation (EC) No 1272/2008).
Substances hazardous to the aquatic environment, labelled with Aquatic Acute cat. 1, Aquatic Chronic cat. 1,2 (H400, H410, H411)	
Acute toxic substances, labelled with Acute Tox. cat. 1,2,3 (H300, H301, H310, H311)	
Substances with specific target organ toxicity, labelled with STOT SE 1, STOT RE 1 (H370, H372)	
Carcinogenic substances, labelled with Carc. cat. 1A and/or 1B (H350)	
Germ cell mutagenic substances, labelled with Muta cat. 1A and/or 1B (H340)	
Reproductive toxic substances, labelled with Repr. cat. 1A and/or 1B (360D, H360F, H360FD)	
Release of dangerous substances of the mineral sealing slurry ^{b)}	See Annex A2
Release scenario regarding BWR 3	S/W1
Watertightness / Penetration of water	See Annex A1
Watertightness in end use conditions for use category a) and around penetrations (if any).	See Annex A1
Watertightness in end use conditions for use scenario b)	See Annex A1
Water vapour permeability	See Annex A1
Bond strength	See Annex A1
Resistance to clear water	See Annex A1
Resistance to freeze/thaw	See Annex A1
Sliding during installation	See Annex A1
Material of mineral sealing slurry	See Annex A1
Shrinkage	See Annex A1
Thickness after drying	See Annex A1
Material of primer	See Annex A1
Material of sealing details	See Annex A1
Dimensions	See Annex A1
Resistance to alkalinity	See Annex A1

^{a)} Based on a detailed written manufacturers declaration

^{b)} Statement according to test report

3.3 General aspects

The verification of durability and serviceability is only ensured if the specifications of intended use according to Annex B and the specifications of the technical file of the manufacturer are kept.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to Decision of the Commission 2003/655/EC the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use(s)	Level or class	System
mineral sealing slurry kit	For building works	-	2+
	For uses subject to regulation on reaction to fire	E	1, 3, 4

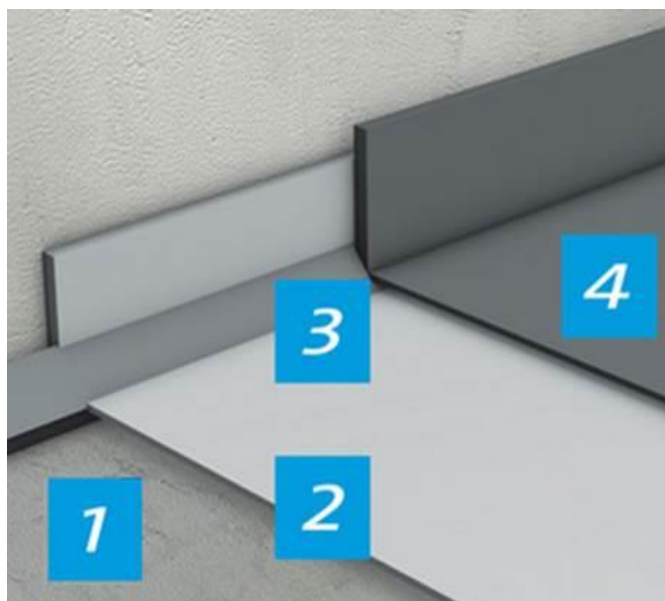
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 18 August 2017 by Deutsches Institut für Bautechnik

Dr.-Ing. Lars Eckfeldt
p. p. Head of Department

beglaubigt:
Hemme



- 1 Mineral substrate
- 2 Primer KÖSTER Polysil TG 500
- 3 Sperrmörtel KÖSTER Sperrmörtel
- 4 Mineral sealing slurry KÖSTER NB 1 Grau

Table A.1 Performances and use scenarios

Reaction to fire	Class E
Classification according to EN 13501-1	Class E
Release scenario regarding BWR 3:	SW1
Watertightness / Penetration of water	Watertight
Watertightness in end use conditions for use category a) and around penetrations (if any).	Admissible water pressure: up to 3 m
Watertightness in end use conditions for use scenario b)	Admissible water pressure: up to 20 m
Water vapour permeability	npa
Bond strength	>0,5 N/mm ²
Resistance to clear water	>0,5 N/mm ²
Resistance to freeze/thaw	>0,5 N/mm ²
Sliding during installation	No changes in the surface, e.g. sliding / Flowing
Material of mineral sealing slurry	one-component mineral sealing slurry on the basis of cement
Shrinkage	≤ 2,5 mm/m
Minimum Thickness after drying / Consumption	2 mm / 4,0 kg/m ²
Material of Primer	polymer on the basis of silicate
Material of Mortard	mortar according to EN 998-1
Dimensions	powder
Resistance to alkalinity	npa, not necessary

KÖSTER NB 1 Grau
Köster Bauchemie AG

Product and performances of the product

Annex A1

Table A.2 Assessment of the release of the leachable substances of the mineral sealing slurry based on CEN/TS 16637-2:2014-11

General parameter	Cumulative release _a after 64 d	Unit	Test method
Lead	Pb < 3.56	[mg/m ²]	EN ISO 17294-2
Cadmium	Cd < 0.40		
Chromium total	Cr < 2.38		
Copper	Cu < 5.54		
Nickel	Ni < 5.54		
Zinc	Zn < 22.96		
Arsenic	As < 4.75		

Table A.3 Biological assessment of the mineral sealing slurry

Biological parameter	Test result	Unit	Test method
Daphnia toxicity	$G_D \leq 4_b$	-	EN ISO 6341:2013-01
Algae toxicity	$G_A \leq 4_b$	-	DIN 38412-33
Luminescent bacteria toxicity	$G_L \leq 8_b$	-	EN ISO 11348-2
Biogradability	> 70	%	OECD Guideline for testing chemicals 301 A

Note

a: Total sum of product of concentration and the volume/ surface relation (of eluate and test specimen) after 64 d, $\sum_{i=1}^{64} (c_i \cdot \frac{V}{O})$.

b: Tested after 6 hours and 64 days.

KÖSTER NB 1 Grau
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Performance of the product: Release of dangerous substances

Annex A2

Information about Manufacturing of the product, Packaging, transport, storage of the product, Installation of the product in the works, Use, maintenance and repair are laid down in the technical documentation of the manufacturer, specially the following points:

- During transport and storing the sealing tape shall be protected against freeze and humidity.
- Mixing ration of sealing slurry: 25 kg powder / 8 l water
- The minimum consume is 4.0 kg/m²
- Temperature during installation: +2°C to +30°C
- The mineral sealing slurry shall be applied in at least two layers.
- The minimum thickness of cured material shall be 2,0 mm.
- Corners and edges between floors and walls are to be formed with a groove of a diameter of round about 5 cm made of "Köster Sperrmörtel" with a consume of 1,5 kg/m

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KÖSTER NB 1 Grau Köster Bauchemie AG	Annex B
Intended use Specifications	