

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-17/1052**  
**of 9 February 2018**

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

Line-X XS-101 EU

Product family  
to which the construction product belongs

Liquid applied roof waterproofing on the basis of a two  
component polyurethane

Manufacturer

LINE-X CORPORATE OFFICE:  
301 James Record Rd, Ste 250  
HUNTSVILLE, AL 35824  
USA

Manufacturing plant

Produktionsanlage 824

This European Technical Assessment  
contains

7 pages including 2 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

ETAG 005 Part 6: "Specific stipulations for kits based on  
polyurethane",  
used as EAD according to Article 66 Paragraph 3 of  
Regulation (EU) No 305/2011.

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## Specific part

### 1 Technical description of the product

The liquid applied roof waterproofing "Line-X XS-101 EU" is a kit, which consists of the components:

- liquid applied roof waterproofing on the basis of a two-component polyurethane
- coloured coating on the same basis (optional)

For an adequate adhesion of the waterproofing layer – depending on the type of substrate – a primer is required. In general the primer belonging to the substrate is given in the manufacturer technical documents<sup>1</sup>. In single cases the manufacturer is responsible to give guidance which pretreatment/primer is required.

As an assembled system these components form a homogeneous seamless roof waterproofing. The components and the system build-up of the roof waterproofing "Line-X XS-101 EU" are given in Annex A.

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

The product is used for the waterproofing of roof surfaces against penetration of atmospheric water.

The product is suitable for compressible substrates (e.g. insulation boards) and non-compressible substrates (e.g. steel, concrete).

In the technical file the manufacturer give information concerning the substrates which the product is suitable for and on how these substrates shall be pre-treated.

The levels of use categories are given in Annex A.

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of working life of the product of 10 years. 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.

The levels of use categories and performances given in Section 3 are only valid if the liquid applied roof waterproofing is used in compliance with the specifications and conditions given in Annex B and the installation instructions of the manufacturer stated in the technical documents.

### 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
External fire performance	See Annex A
Reaction to fire	See Annex A

<sup>1</sup> The manufacturer's technical documents comprises all information necessary for the production and the installation of the product as well as for repair of the roof waterproofing made from that and it is deposited with DIBt.

### 3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Water vapour permeability	See Annex A
Watertightness	See Annex A
Content, emission and/or release of dangerous substances:	
CMR-Substances Substance/s classified as EU-cat. Carc. 1A and/or 1B <sup>a)</sup> Substance/s classified as EU-cat. Muta. 1A and/or 1B <sup>a)</sup> Substance/s classified as EU-cat. Repr. 1A and/or 1B <sup>a)</sup>	The product does not contain these dangerous substances. <sup>b)</sup>
Release scenario regarding BWR3:	S/W 2
Resistance to mechanical damage (perforation)	See Annex A
Resistance to plant roofs	See Annex A

<sup>a)</sup> In accordance with Regulation (EC) No 1272/2008.

<sup>b)</sup> Assessment based on the detailed manufacturer's statements

### 3.3 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Resistance to wind loads	See Annex A
Slipperiness	See Annex A

### 3.4 General aspects

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

English translation prepared by DIBt

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

According to Decision of the Commission of 12 October 1998 (98/599/EC) (OJ L 287 of 24.10.98, p. 30), as amended by Decision of the Commission of 8 January 2001 (2001/596/EC) (OJ L 209 of 02.08.2001, p. 33), 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
Liquid applied roof waterproofing kits	For uses subject to external fire performance regulations	B <sub>ROOF</sub> (t1)	3
	For uses subject to reaction to fire	E	3
	All other roof waterproofing uses (all other characteristics)	—	3

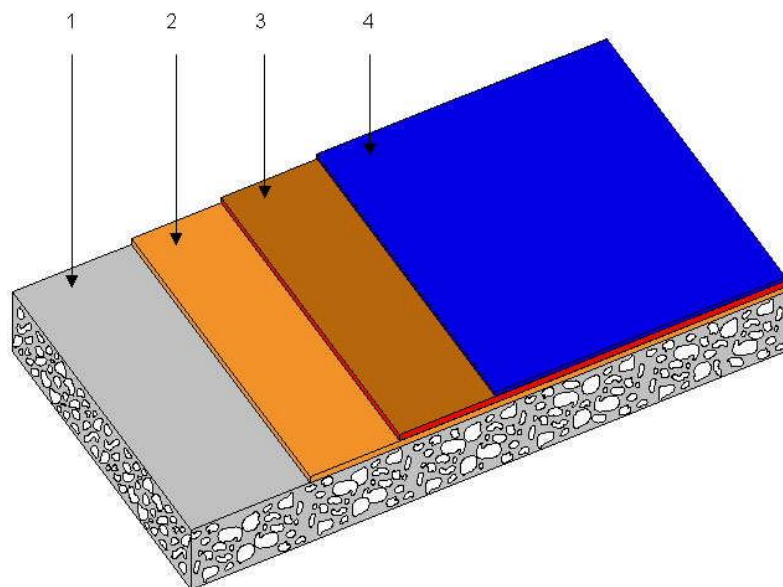
**5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

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 9 February 2018 by Deutsches Institut für Bautechnik

BD Dipl.-Ing Andreas Kummerow  
Head of Department

*beglaubigt:*  
Hannoun



Components

- 1 Substrate
- 2 Primer
- 3 Line-X XS-101 EU
- 4 Top Coat (optional)

Applicable to the roof waterproofing "**Line-X XS-101 EU**"

Minimum layer thickness	2.4 mm	
minimum quantity consumed:	2,4 bis 3,0 kg/m <sup>2</sup>	
<u>Levels of use categories according to ETAG 005 with relation to:</u>		
Working life:	W2 (10 years)	
Climatic zones	M and S (moderate and severe climatic)	
Resistance to mechanical damage (perforation) Compressible substrates and non-compressible substrates	P1 to P4	
Roof slope	S1 to S4 (each roof pitch)	
Lowest surface temperature	TL4 (-30 °C)	
Highest surface temperature	TH4 (90 °C)	
<u>Performance of the product:</u>		
External fire performance	EN 13501-5	no performance assessed
Reaction to fire	EN 13501-1	E
Water vapour diffusion resistance factor $\mu$		$\mu \approx 2320$
Watertightness		pass
Statement on dangerous substances		see section 3.2
Resistance to plant roots		no performance assessed
Resistance to wind loads		$\geq 50$ kPa
Resistance to slipperiness		no performance assessed

**Line-X XS-101 EU**  
LINE-X CORPORATE OFFICE

**System built-up, levels of use categories and performances of the product**

Annex A

## Installation

The levels of use categories and the performances of the roof waterproofing can be assumed only, if the installation is carried out according to the installation instructions stated in the technical file of the manufacturer, in particular taking account of the following points:

- installation by appropriately trained personnel,
- installation of only those components which are marked components of the kit,
- installation with the required tools and adjuvants
- precautions during installation,
- inspecting the roof surface for cleanliness and correct preparation, if need be, applying a primer before applying the product,
- inspecting compliance with suitable weather and curing conditions,
- ensuring a thickness of the cured waterproofing of at least 2.4 mm by processing appropriate minimum quantities of material,
- inspections during installation and of the finished product and documentation of the results.

<b>Line-X XS-101 EU</b> LINE-X CORPORATE OFFICE	Annex B
<b>Intended use</b> Specifications	