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European Technical Assessment

ETA 15/0332
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General part

Trade name of the construction product	Roof waterproofing system POLIUREA PS
Product family to which the construction product belongs	Liquid applied roof waterproofing kits, based on polyurea
Manufacturer	POLIUREA SISTEMES SL C/ Bilbao 23 Pol. Ind. Cadesbank ES-08291 Ripollet (Barcelona) Spain
Manufacturing plant(s)	Plant 1
This European Technical Assessment contains	6 pages including 1 Annex which forms an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) 305/2011, on the basis of	European Technical Approval Guideline No 005 (ETAG 005), edition 2004, used as European Assessment Document (EAD)

General comments

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document.

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Specific parts of the European Technical Assessment

1 Technical description of the product

POLIUREA PS is a roof waterproofing kit manufactured by Poliurea Sistemi SL consisting of a two-component polyurea membrane, a two component aliphatic polyurethane UV protection system (PU-400 Flex) and different primers for specific substrates (Primer PS-025, Primer PS-022, Primer PS-FZ and Primer PS-100, as specified in chapter 2). As assembled system these components form a homogeneous seamless roof waterproofing.

The minimum thickness of the applied system depends on the end use, as follows:

1. For load categories P1 and P2 the minimum thickness is 1,4 mm (application rate of 1,7 kg/m²).
2. For load category P3 the minimum thickness is 2,6 mm (application rate of 2,9 kg/m²).

To achieve this specification the following should be applied:

1. Primer of 0,2 kg/m² (specific product as necessary).
2. POLIUREA PS of 1,7 kg/m² (for P1 and P2) or 2,9 kg/m² (for P3) minimum.
3. PU-400 Flex protection layer of 0,335 kg/m².

2 Specification of the intended use(s) in accordance with the applicable EAD

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

The kit has been assessed for use on the following substrates:

- Concrete, primed with Primer PS-025
- Ceramic tiles, primed with Primer PS-022
- Galvanised steel, primed with Primer PS-FZ
- Polyurethane foam, primed with Primer PS-100

The verifications which are based on this ETA give reason for a working life of the roof waterproofing of 10 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

Relevant manufacturer's instructions on installation are stated in Annex 1.

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

Performances of the liquid applied waterproofing kit, related to the basic requirements for construction works (hereinafter BWR), were determined according to the ETAG 005 Part 1 and Part 6.

3.1 Essential characteristics of the product

Uses	Non-accessible or accessible for maintenance	Accessible to pedestrian traffic
Minimum layer thickness	1,4 mm	2,6 mm
Minimum application rate	1,7 kg/m ²	2,9 kg/m ²
Use categories		
Working life	W2	W2
Climatic zone of use	S	S
User loads	P1 and P2	P3
Roof slope	S1 to S4	S1 to S4
Minimum surface temperature	TL2	TL2
Maximum surface temperature	TH4	TH4
Essential characteristic		
Performance		
External fire performance	B _{ROOF} (t1, t2, t3 or t4) ¹ F _{ROOF} (t1, t2, t3 or t4) ²	B _{ROOF} (t1, t2, t3 or t4) ¹ F _{ROOF} (t1, t2, t3 or t4) ²
Reaction to fire	F	F
Water vapour diffusion resistance factor μ	$\mu = 6169$ (with PU-400 Flex protection)	$\mu = 4008$ (with PU-400 Flex protection)
	$\mu = 2209$ (without protection)	$\mu = 2496$ (without protection)
Release of dangerous substances	Performance not assessed	Performance not assessed
Resistance to wind loads	> 50 kPa	> 50 kPa
Resistance to plant roots	Performance not assessed	Performance not assessed
Resistance to slipperiness	$\mu = 0,55$	$\mu = 0,55$

Table 1. Performance of Poliurea PS.

3.2 Assessment methods

The assessment of Poliurea PS for the intended uses considering the basic requirements for construction works 2, 3 and 4 of Regulation (EU) N° 305/2011 has been made in accordance with the *Guideline for European Technical Approval for Liquid Applied Roof Waterproofing Kits, part 1 General and part 6 Specific stipulations for kits based on polyurethane (ETAG 005, parts 1 & 6)*, used as EAD.

¹ With protection layer covered by Commission Decisions 2000/553/CE and 2001/671/CE.

² Without protection layer or protection layer not covered by Commission Decisions 2000/553/CE and 2001/671/CE.

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

According to the decision 98/599/EC³ of the European Commission the system of assessment and verification of constancy of performance (see EC delegated regulation (EU) No 568/2014 amending Annex V to Regulation (EU) 305/2011) given in the following table applies:

Product	Intended use	Levels or classes	System
Liquid applied roof waterproofing kits	For all roof waterproofing uses	---	3

Table 2. System of assessment and verification of constancy of performance.

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

Technical details for the implementation of the AVCP system are laid down in the *Control Plan* deposited with the ITeC.

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by the Catalonia Institute of Construction Technology.



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³ 98/599/EC: Commission Decision of 12 October 1998 on the procedure for attesting the conformity of construction products pursuant to Article 20(2) of Council Directive 89/106/EEC as regards liquid applied roof waterproofing kits (notified under document number C(1998) 2924) (Text with EEA relevance).

ANNEX 1: Installation

The levels of use categories of the roof waterproofing have been assessed following the manufacturer instructions stated in the MTD. Main elements in these instructions are:

- Substrates inspection and if necessary, treatments to ensure that they are solid, clean and dry.
- Compliance with suitable weather conditions for applying and curing the product.
- Adequate primer to be applied to considered substrates, as defined in chapter 2.
- Installation to be performed applying the minimum thickness of each component, as stated in chapter 1. Time lapse as defined in the product documentation to be left between each application.
- Appropriate tools to be used.
- Inspections during installation and of the finished waterproofing.
- Instructions for repairing on site and handling of waste products.