CSTB
le futur en construction

84, avenue Jean-Jaurès
Champs-sur-Marne
FR-77447 Marne-la-Vallée Cedex 2
Phone: + 33 (0)1 64 68 82 82
E-mail: etancheite@cstb.fr
Website: www.cstb.fr

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EOTA
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European Technical Assessment

ETA-08/0114 of 02 sept 2020

(English translation prepared by CSTB – Original version in French language)

GENERAL PART

Technical Assessment Body issuing the European Technical Assessment:	Centre Scientifique et Technique du Bâtiment (CSTB)
Trade name of the construction product:	**Procédé FLASHING**
Product family to which the construction product belongs:	Product Area Code: 03 One component bitumen – polyurethane resin for flashing application.
Manufacturer:	SOPREMA SAS 14, rue de saint nazaire BP 70215 67025 STRASBOURG CEDEX 1
Manufacturing plant(s):	SOPREMA SAS 14, rue de saint nazaire BP 70215 67025 STRASBOURG CEDEX 1
This European Technical Assessment contains:	9 pages including 1 Annex(es) 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) n° 030155-00-0402 (adopted draft EAD on march 22 2016) : "ONE COMPONENT BITUMEN-POLYURETHANE RESIN FOR FLASHING APPLICATION"

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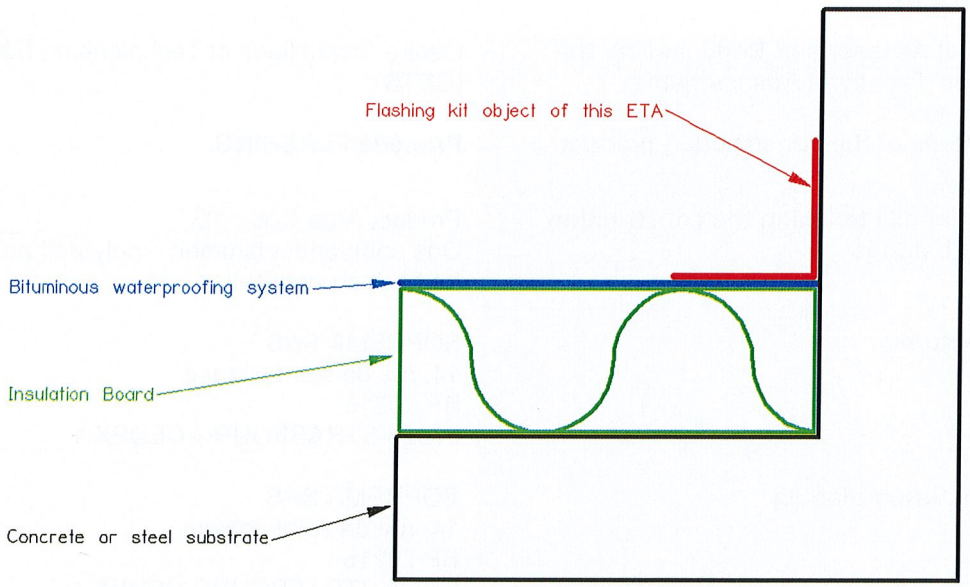
SPECIFIC PART

1. Technical description of the product

The roof waterproofing flashing system consists of one component bitumen-polyurethane resin for flashing application applied directly to bitumen waterproofing membrane used in the horizontal part of the roof.

The roof waterproofing flashing system is composed of:

- 1 layer of « ALSAN FLASHING » or « ALSAN FLASHING JARDIN » resin (900 g/m²)
- 1 layer of reinforcement « ALSAN TOILE DE RENFORT » put on the corner of the flashing with a minimum width of 10 cm
- 1 layer of « ALSAN FLASHING » or « ALSAN FLASHING JARDIN » resin (700g/m²)



The existing or new waterproofing system in horizontal parts of the roof, must be CE marked according to EN 13707 or according to ETAG 006 (used as EAD), and can only be:

- Flexible bituminous sheets mechanically fastened.
- Partially or fully bonded bituminous sheets
- Loose laid flexible bituminous sheets

Admissible substrates are:

- For horizontal part :
  - bitumen sheet with mineral protection
  - bitumen sheet with metallic protection.
  - bitumen sheet with sand finishing
  - bitumen sheet burned film finishing (black sheet)
- For vertical part (acroterion, metallic roofcurb)
  - Concrete (all finish)
  - Steel

The minimum thickness of the roof waterproofing flashing system applied is 1.2 mm.

NB : the width of the overlapping between the roof waterproofing flashing system and the bitumen sheets or the vertical part depend of the national regulation.

2. Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)

The roof waterproofing flashing system for the waterproofing of roof surfaces against penetration of atmospheric water.

The roof waterproofing flashing system shows certain levels of performance according to EAD n°15-03-0155-04.02 which facilitates the use taking account of national requirements.

In the manufacturer's technical dossier (MTD) to this European technical assessment (ETA) the manufacturer gave information concerning substrates which the roof waterproofing flashing system is suitable for and on how these substrates shall be pre-treated.

The verifications which are based on this ETA give reason for the assumption of an intended working life of the roof waterproofing flashing system 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

3. Performances of the product and references to the methods used for their assessment

Performances of the roof waterproofing flashing system, related to the basic requirements for construction works (hereinafter BWR), were determined according to the EAD n°15-03-0155-04.02.

These performances, given in the following paragraphs, are valid as long as the components are the ones described in § 1 and Annexe 1 of this ETA.

3.1 Mechanical resistance and stability (BWR 1)

Not relevant.

3.2 Safety in case of fire (BWR 2)

Reaction to fire: No performance assessed

External fire performance: No performance assessed

3.3 Hygiene, health and the environment (BWR 3)

3.3.1 Watertightness

Kit is watertight according to Technical Report EOTA 003.

3.3.2 Resistance against ageing

Performance and tensile properties, after exposure of accelerated ageing by heat, artificial weathering and accelerated ageing by hot water are kept.

3.3.3 Resistance to plant roots

Resin ALSAN FLASHING : No performance assessed.
Resin ALSAN FLASHING JARDIN: Resistant to root penetration.

3.3.4 Release of dangerous substances

According to Technical Report EOTA n° 034, the product does not contain dangerous substance.

3.4 Safety and accessibility in use (BWR 4)

3.4.1 Resistance to wind load

Bond strength on admissible substrates is > 50kPa.

3.4.2 Resistance to slipperiness

No performance determined.

3.5 Protection against noise (BWR 5)

No performance determined.

3.6 Energy economy and heat retention (BWR 6)

No performance determined.

3.7 Sustainable use of natural resources (BWR 7)

No performance determined.

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

According to Decision 97/556/EC (Decision of the Commission of 14 July 1997, L 229 of 20.8.1997, p. 15), as amended by Decision 2001/596/EC (Decision of the Commission of 8 January 2001, L 209 of 2.8.2001, p. 33), the systems of AVCP given in the following table apply:

Product	Intended uses	Level or Class	System
Liquid applied roof waterproofing kits	For all roof waterproofing uses	-	3

The systems of AVCP are described in Annex V of Regulation (EU) No 305/2011, as amended by Delegated Regulation (EU) No 568/2014.

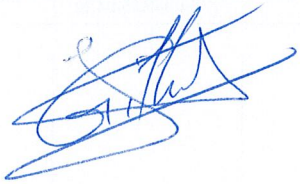
5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at the CSTB.

Issued in Marne-la-Vallée on 02 sept 2020

by

Stéphane GILLIOT – DEB/FaCeT - CSTB



Apllicable to roof waterproofing : Resin ALSAN FLASHING						
Properties	Number of specimen / tests	Test method	Dimension	Results		
				Smallest values	Higtest values	Mean values
New specimen						
External fire performance	No testing			No performance assessed		
Reaction to fire	No testing			No performance assessed		
Tensile properties						
Maximum tensile strength	5	EN ISO 527-3	Mpa	2,6	3,4	3
Elongation			%	344	505	431
Watertightness	3	TR 003	/	Watertight		
Flexibilty at low temerature	5	EN 1109	°C	-36		
Resistance to plant root	No testing			No performance assessed		
Delamination						
burned plastic film upper face	5	TR 004	kPa	249	284	269
Metallic autoprotection				369	424	401
sand upper face				338	498	408
mineral protection				336	421	371
Concrete				899	1234	1107
Steel				719	1347	935
Resistance to dynamic indentation						
burned plastic film upper face	5	EN 12691 (method B)	m	2		
Metallic autoprotection						
sand upper face						
mineral protection						
Differential movement of insulation : - 20°C/500 cycles	1	§ 2.2.7 of EAD n°15-03-0155-04.02.	/	No cracks, no loosening of layers, no splits, no loss of adhesion : Watertight		
Differential movement on vertical and horizontal side	1	§ 2.2.8 of EAD n°15-03-0155-04.02.		No cracks, no loosening of layers, no splits, no loss of adhesion : Watertight		
Compressibility test for insulation materials compressibility (10%)						
C10 % of insultation	3	§ 2.2.9 of EAD n°15-03-0155-04.02.	kPa	81	91	85
C10% of applied kit on concrete				80	89	84
C10% of applied kit on steel				82	95	88
Charge until ruin on concrete				245	267	254
Charge until ruin on steel				246	>325	>325
Determination of the resistance of sliding	3	§ 2.2.10 of EAD n°15-03-0155-04.02.	mm	0,0	0,0	0,0
Compatibility product / membrane : Peel resistance						
Burned plastic film upper face	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	**Burned plastic film upper face**		
Maximal resistance				156	205	181
Mean resistance				139	156	145
Metallic autoprotection				**Metallic autoprotection**		
Maximal resistance				76	109	89
Mean resistance				36	39	38
Sand upper face				**Sand upper face**		
Maximal resistance				222	231	225
Mean resistance				156	182	166
Mineral protection				**Mineral protection**		
Maximal resistance				271	297	285
Mean resistance				235	259	247
Concrete				**Concrete**		
Maximal resistance				222	226	224
Mean resistance				173	183	178
Steel				**Steel**		
Maximal resistance				81	166	131
Mean resistance				61	119	90

Roof waterproofing "ALSAN FLASHING"

Roof waterproofing flashing system

Characteristics of " Procédé FLASHING"

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Apllicable to roof waterproofing : Resin ALSAN FLASHING						
Properties	Number of specimen / tests	Test method	Dimension	Results		
				Smallest values	Higtest values	Mean values
Resistance to thermal ageing (TR 011) during 84 days at 70°C						
Flexibilty at low temerature	5	EN 1109	°C	-36		
Tensile properties						
Maximum tensile strength	5	EN ISO 527-3	Mpa	2,3	3,7	3,1
Elongation			%	459	536	510
Resistance to thermal ageing (TR 011) during 1 month at 80°C						
Differential movement of insulation : - 20°C/200 cycles	1	§ 2.2.8 of EAD n°15-03-0155-04.02.	/	No cracks, no loosening of layers, no splits, no loss of adhesion : Watertight		
Compatibility product / membrane : Peel resistance						
Burned plastic film upper face	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	**Burned plastic film upper face**		
Maximal resistance				155	173	167
Mean resistance				127	145	134
Metallic autoprotection				**Metallic autoprotection**		
Maximal resistance				159	205	178
Mean resistance				54	113	89
Sand upper face				**Sand upper face**		
Maximal resistance				198	238	215
Mean resistance				159	162	161
Mineral protection				**Mineral protection**		
Maximal resistance				246	261	254
Mean resistance				221	237	227
Concrete				**Concrete**		
Maximal resistance				179	320	242
Mean resistance				162	253	207
Steel				**Steel**		
Maximal resistance				235	270	248
Mean resistance				170	204	184
Resistance to UV ageing (TR 010) during 1000h at 60°C						
Flexibility at low temperature	5	EN 1109	°C	-36		
Tensile properties						
Maximum tensile strength	5	NF EN ISO 527-3	MPa	2,1	2,8	2,5
Elongation			%	399	530	478
Resistance to stagnant water ageing (TR 012) during 30 days at 60°C						
Resistance to dynamic indentation						
burned plastic film upper face	5	EN 12691 (method B)	m	2		
Metallic autoprotection						
sand upper face						
mineral protection						
Compatibility product / membrane : Peel resistance						
Concrete	5	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	**Concrete**		
Maximal resistance				170	222	197
Mean resistance				160	206	
Steel				**Steel**		
Maximal resistance				170	217	188
Mean resistance				130	163	144

Roof waterproofing ''ALSAN FLASHING''

Roof waterproofing flashing system

Characteristics of '' Procédé FLASHING''

ANNEX 1 (2/4)
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Apllicable to roof waterproofing : Resin ALSAN FLASHING JARDIN						
Properties	Number of specimen / tests	Test method	Dimension	Results		
				Smallest values	Higtest values	Mean values
New specimen						
External fire performance	No testing			No performance assessed		
Reaction to fire	No testing			No performance assessed		
Tensile properties						
Maximum tensile strength	5	EN ISO 527-3	Mpa	4,4	5,5	5,1
Elongation			%	418	463	435
Watertightness	3	TR 003	/	Watertight		
Flexibilty at low temerature	5	EN 1109	°C	-36		
Resistance to plant root	6	EN 13 948	/	No root penetration - Watertight		
Delamination						
burned plastic film upper face	5	TR 004	kPa	249	284	269
Metallic autoprotection				369	424	401
sand upper face				338	498	408
mineral protection				336	421	371
Concrete				899	1234	1107
Steel				599	827	752
Resistance to dynamic indentation						
burned plastic film upper face	5	EN 12691 (method B)	m	2		
Metallic autoprotection						
sand upper face						
mineral protection						
Differential movement of insulation : - 20°C/500 cycles	1	§ 2.2.7 of EAD n°15-03-0155-04.02.	/	No cracks, no loosening of layers, no splits, no loss of adhesion : Watertight		
Differential movement on vertical and horizontal side	1	§ 2.2.8 of EAD n°15-03-0155-04.02.		No cracks, no loosening of layers, no splits, no loss of adhesion : Watertight		
Compressibility test for insulation materials compressibility (10%)						
C10 % of insultation	3	§ 2.2.9 of EAD n°15-03-0155-04.02.	kPa	81	91	85
C10% of applied kit on concrete				80	89	84
C10% of applied kit on steel				82	95	88
Charge until ruin on concrete				245	267	254
Charge until ruin on steel				246	>325	>325
Determination of the resistance of sliding	3	§ 2.2.10 of EAD n°15-03-0155-04.02.	mm	0,0	0,0	0,0
Compatibility product / membrane : Peel resistance						
Burned plastic film upper face	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	**Burned plastic film upper face**		
Maximal resistance				99	121	106
Mean resistance				62	92	77
Metallic autoprotection				**Metallic autoprotection**		
Maximal resistance				136	187	166
Mean resistance				98	132	109
Sand upper face				**Sand upper face**		
Maximal resistance				108	115	113
Mean resistance				77	85	81
Mineral protection				**Mineral protection**		
Maximal resistance				202	242	212
Mean resistance				160	218	182
Concrete				**Concrete**		
Maximal resistance				163	186	176
Mean resistance				125	146	138
Steel				**Steel**		
Maximal resistance				121	133	130
Mean resistance				80	94	88

Roof waterproofing "ALSAN FLASHING JARDIN"

Roof waterproofing flashing system

Characteristics of " Procédé FLASHING"

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Apllicable to roof waterproofing : Resin ALSAN FLASHING JARDIN						
Properties	Number of specimen / tests	Test method	Dimension	Results		
				Smallest values	Higtest values	Mean values
Resistance to thermal ageing (TR 011) during 84 days at 70°C						
Flexibilty at low temerature	5	EN 1109	°C	-35		
Tensile properties						
Maximum tensile strength	5	EN ISO 527-3	Mpa	4,1	4,5	4,3
Elongation			%	471	495	478
Resistance to thermal ageing (TR 011) during 1 month at 80°C						
Differential movement of insulation : - 20°C/200 cycles	1	§ 2.2.8 of EAD n°15-03-0155-04.02.	/	No cracks, no loosening of layers, no splits, no loss of adhesion : Watertight		
Compatibility product / membrane : Peel resistance						
Burned plastic film upper face	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	**Burned plastic film upper face**		
Maximal resistance				155	173	167
Mean resistance				127	145	134
Metallic autoprotection				**Metallic autoprotection**		
Maximal resistance				159	205	178
Mean resistance				54	113	89
Sand upper face				**Sand upper face**		
Maximal resistance				198	238	215
Mean resistance				159	162	161
Mineral protection				**Mineral protection**		
Maximal resistance				246	261	254
Mean resistance				221	237	227
Concrete				**Concrete**		
Maximal resistance				292	325	306
Mean resistance				195	274	234
Steel				**Steel**		
Maximal resistance				118	178	144
Mean resistance				80	113	97
Resistance to UV ageing (TR 010) during 1000h at 60°C						
Flexibility at low temperature	5	EN 1109	°C	-36		
Tensile properties						
Maximum tensile strength	5	NF EN ISO 527-3	MPa	3,9	4,8	4,5
Elongation			%	471	495	478
Resistance to stagnant water ageing (TR 012) during 30 days at 60°C						
Resistance to dynamic indentation						
burned plastic film upper face	5	EN 12691 (method B)	m	2		
Metallic autoprotection						
sand upper face						
mineral protection						
Compatibility product / membrane : Peel resistance						
Concrete	5	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	**Concrete**		
Maximal resistance				224	250	237
Mean resistance				cohesive failure		
Steel				**Steel**		
Maximal resistance				207	228	219
Mean resistance				cohesive failure		

Roof waterproofing ''ALSAN FLASHING JARDIN''

Roof waterproofing flashing system

Characteristics of '' Procédé FLASHING''

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