



## European Technical Assessment

**ETA-08/0114  
of 16/01/2017**

(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 applied directly to bitumen waterproofing membrane used in the horizontal part of the roof.

**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°15-03-0155-04.02 (adopted draft EAD on march 22 2016) : "ONE COMPONENT BITUMEN-POLYURETHANE RESIN FOR FLASHING APPLICATION"

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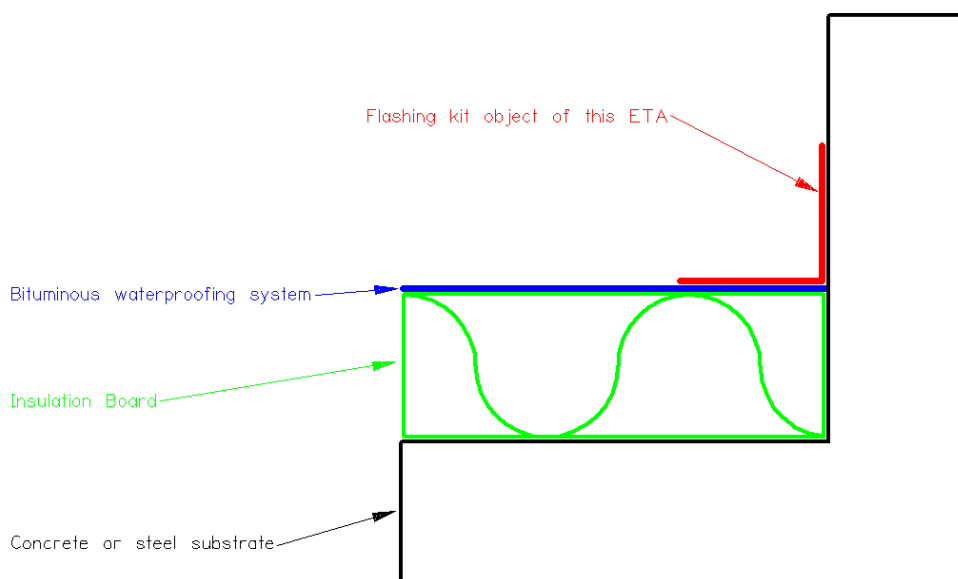
## SPECIFIC PART

### 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/m<sup>2</sup>)
- 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/m<sup>2</sup>)



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 16/01/2017

by

Charles BALOCHE, Technical Manager of the CSTB

Applicable to roof waterproofing : Resin ALSAN FLASHING									
Properties	Number of specimen / tests	Test method	Dimension	Results					
				Smallest values	Highest values	Mean values			
New specimen									
<b>External fire performance</b>	No testing		No performance assessed						
<b>Reaction to fire</b>	No testing		No performance assessed						
<b>Tensile properties</b>									
Maximum tensile strength	5	EN ISO 527-3	Mpa	2,6	3,4	3			
Elongation			%	344	505	431			
<b>Watertightness</b>	3	TR 003	/	Watertight					
<b>Flexibility at low temperature</b>	5	EN 1109	°C	-36					
<b>Resistance to plant root</b>	No testing		No performance assessed						
<b>Delamination</b>									
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			
<b>Resistance to dynamic indentation</b>									
burned plastic film upper face	5	EN 12691 (method B)	m	2					
Metallic autoprotection									
sand upper face									
mineral protection									
<b>Differential movement of insulation :</b> - 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					
<b>Differential movement on vertical and horizontal side</b>	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					
<b>Compressibility test for insulation materials compressibility (10%)</b>									
C10 % of insulation	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			
<b>Determination of the resistance of sliding</b>	3	§ 2.2.10 of EAD n°15-03-0155-04.02.	mm	0,0	0,0	0,0			
<b>Compatibility product / membrane : Peel resistance</b>									
<b>Burned plastic film upper face</b>				<b>Burned plastic film upper face</b>					
Maximal resistance	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	156	205	181			
Mean resistance				139	156	145			
<b>Metallic autoprotection</b>				<b>Metallic autoprotection</b>					
Maximal resistance				76	109	89			
Mean resistance				36	39	38			
<b>Sand upper face</b>				<b>Sand upper face</b>					
Maximal resistance				222	231	225			
Mean resistance				156	182	166			
<b>Mineral protection</b>				<b>Mineral protection</b>					
Maximal resistance				271	297	285			
Mean resistance				235	259	247			
<b>Concrete</b>				<b>Concrete</b>					
Maximal resistance				222	226	224			
Mean resistance				173	183	178			
<b>Steel</b>				<b>Steel</b>					
Maximal resistance				81	166	131			
Mean resistance				61	119	90			

**Roof waterproofing "ALSAN FLASHING"**

*Roof waterproofing flashing system*

**Characteristics of "Procédé FLASHING"**

**ANNEX 1 (1/4)**  
of ETA-08/0114

Applicable to roof waterproofing : Resin ALSAN FLASHING									
Properties	Number of specimen / tests	Test method	Dimension	Results					
				Smallest values	Highest values	Mean values			
Resistance to thermal ageing (TR 011) during 84 days at 70°C									
<b>Flexibility at low temperature</b>	5	EN 1109	°C	-36					
<b>Tensile properties</b>									
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									
<b>Differential movement of insulation :</b> - 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					
<b>Compatibility product / membrane : Peel resistance</b>									
<b>Burned plastic film upper face</b>				<b>Burned plastic film upper face</b>					
Maximal resistance	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	155	173	167			
Mean resistance				127	145	134			
<b>Metallic autoprotection</b>				<b>Metallic autoprotection</b>					
Maximal resistance				159	205	178			
Mean resistance				54	113	89			
<b>Sand upper face</b>				<b>Sand upper face</b>					
Maximal resistance				198	238	215			
Mean resistance				159	162	161			
<b>Mineral protection</b>				<b>Mineral protection</b>					
Maximal resistance				246	261	254			
Mean resistance				221	237	227			
<b>Concrete</b>				<b>Concrete</b>					
Maximal resistance				179	320	242			
Mean resistance				162	253	207			
<b>Steel</b>				<b>Steel</b>					
Maximal resistance				235	270	248			
Mean resistance	170	204	184						
Resistance to UV ageing (TR 010) during 1000h at 60°C									
<b>Flexibility at low temperature</b>	5	EN 1109	°C	-36					
<b>Tensile properties</b>									
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									
<b>Resistance to dynamic indentation</b>									
burned plastic film upper face	5	EN 12691 (method B)	m	2					
Metallic autoprotection									
sand upper face									
mineral protection									
<b>Compatibility product / membrane : Peel resistance</b>									
<b>Concrete</b>				<b>Concrete</b>					
Maximal resistance	5	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	170	222	197			
Mean resistance				160	206				
<b>Steel</b>				<b>Steel</b>					
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)**

of ETA-08/0114

Applicable to roof waterproofing : Resin ALSAN FLASHING JARDIN									
Properties	Number of specimen / tests	Test method	Dimension	Results					
				Smallest values	Highest values	Mean values			
New specimen									
<b>External fire performance</b>	No testing		No performance assessed						
<b>Reaction to fire</b>	No testing		No performance assessed						
<b>Tensile properties</b>									
Maximum tensile strength	5	EN ISO 527-3	Mpa	4,4	5,5	5,1			
Elongation			%	418	463	435			
<b>Watertightness</b>	3	TR 003	/	Watertight					
<b>Flexibility at low temperature</b>	5	EN 1109	°C	-36					
<b>Resistance to plant root</b>	6	EN 13 948	/	No root penetration - Watertight					
<b>Delamination</b>									
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			
<b>Resistance to dynamic indentation</b>									
burned plastic film upper face	5	EN 12691 (method B)	m	2					
Metallic autoprotection									
sand upper face									
mineral protection									
<b>Differential movement of insulation :</b> - 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					
<b>Differential movement on vertical and horizontal side</b>	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					
<b>Compressibility test for insulation materials compressibility (10%)</b>									
C10 % of insulation	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			
<b>Determination of the resistance of sliding</b>	3	§ 2.2.10 of EAD n°15-03-0155-04.02.	mm	0,0	0,0	0,0			
<b>Compatibility product / membrane : Peel resistance</b>									
<b>Burned plastic film upper face</b>	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	<b>Burned plastic film upper face</b>					
Maximal resistance				99	121	106			
Mean resistance				62	92	77			
<b>Metallic autoprotection</b>				<b>Metallic autoprotection</b>					
Maximal resistance				136	187	166			
Mean resistance				98	132	109			
<b>Sand upper face</b>				<b>Sand upper face</b>					
Maximal resistance				108	115	113			
Mean resistance				77	85	81			
<b>Mineral protection</b>				<b>Mineral protection</b>					
Maximal resistance				202	242	212			
Mean resistance				160	218	182			
<b>Concrete</b>				<b>Concrete</b>					
Maximal resistance				163	186	176			
Mean resistance				125	146	138			
<b>Steel</b>				<b>Steel</b>					
Maximal resistance				121	133	130			
Mean resistance				80	94	88			
<b>Roof waterproofing "ALSAN FLASHING JARDIN"</b>				<b>ANNEX 1 (3/4)</b> of ETA-08/0114					
<i>Roof waterproofing flashing system</i>									
<b>Characteristics of " Procédé FLASHING "</b>									



Applicable to roof waterproofing : Resin ALSAN FLASHING JARDIN									
Properties	Number of specimen / tests	Test method	Dimension	Results					
				Smallest values	Highest values	Mean values			
Resistance to thermal ageing (TR 011) during 84 days at 70°C									
<b>Flexibility at low temperature</b>	5	EN 1109	°C	-35					
<b>Tensile properties</b>									
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									
<b>Differential movement of insulation :</b> - 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					
<b>Compatibility product / membrane : Peel resistance</b>									
<b>Burned plastic film upper face</b>				<b>Burned plastic film upper face</b>					
Maximal resistance	3	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	155	173	167			
Mean resistance				127	145	134			
<b>Metallic autoprotection</b>				<b>Metallic autoprotection</b>					
Maximal resistance				159	205	178			
Mean resistance				54	113	89			
<b>Sand upper face</b>				<b>Sand upper face</b>					
Maximal resistance				198	238	215			
Mean resistance				159	162	161			
<b>Mineral protection</b>				<b>Mineral protection</b>					
Maximal resistance				246	261	254			
Mean resistance				221	237	227			
<b>Concrete</b>				<b>Concrete</b>					
Maximal resistance				292	325	306			
Mean resistance				195	274	234			
<b>Steel</b>				<b>Steel</b>					
Maximal resistance				118	178	144			
Mean resistance	80	113	97						
Resistance to UV ageing (TR 010) during 1000h at 60°C									
<b>Flexibility at low temperature</b>	5	EN 1109	°C	-36					
<b>Tensile properties</b>									
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									
<b>Resistance to dynamic indentation</b>									
burned plastic film upper face	5	EN 12691 (method B)	m	2					
Metallic autoprotection									
sand upper face									
mineral protection									
<b>Compatibility product / membrane : Peel resistance</b>									
<b>Concrete</b>				<b>Concrete</b>					
Maximal resistance	5	§ 2.2.11 of EAD n°15-03-0155-04.02.	N/50 mm	224	250	237			
Mean resistance				cohesive failure					
<b>Steel</b>				<b>Steel</b>					
Maximal resistance				207	228	219			
Mean resistance	cohesive failure								

**Roof waterproofing "ALSAN FLASHING JARDIN"**

*Roof waterproofing flashing system*

**Characteristics of " Procédé FLASHING "**

**ANNEX 1 (4/4)**

of ETA-08/0114