

Additional classification report for roofs/roof coverings exposed to external fire No. 20783C

Owner of the classification report

BAILEY TOTAL BUILDING ENVELOPE
Blatchford Close
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Introduction

This classification report defines the classification assigned to the roof/roof covering « **Bailey Atlantic TPO** » in accordance with the procedures given in the standard EN 13501-5:2016 : Fire classification of construction products and building elements – Part 5: Classification using data from external fire exposure to roofs tests: Test 4: Method with two stages incorporating burning brands, wind and supplementary radiant heat

This classification report consists of 6 pages

This report is additional to that issued as No. 19245H, dated 16/05/2019. This report is drafted in accordance with the regulations of EGOLF Agreement EGA 08rev2:2013 “Application note: clause 5.10 / 4-2 – Amendment of reports: client changing product/company names (ii) for commercial reasons – Issue of additional reports”. The original report remains valid and is not replaced by this report. The product has not been retested and this report does not involve technical changes or technical reviews of the original report. The original and the new name of the product and of the company commercially responsible for the product, as well as the declarations concerning this additional report, are documented by the laboratory and maintained in the laboratory records. / The original and the new name of the sponsor, as well as the declarations concerning this additional report, are documented by the laboratory and maintained in the laboratory records.

1. DESCRIPTION OF THE ROOF/ROOF COVERING

	Nominal value	Measured value
SUPPORTING DECK		
A) WOOD PARTICLE BOARD		
Thickness (mm)	16	
Density (kg/m ³)	680	
B) FIBER CEMENT BOARD		
Thickness (mm)	8	
Density (kg/m ³)	1800±200	
UNDERLAYER (OPTIONAL)		
Material	Glass fleece	
Manufacturer	Vliepa	
Supplier	Köster Bauchemie AG	
Thickness (mm)	0,5	0,5
Density (kg/m ³)	(2)	233
Surface weight (g/m ²) of the product as such	120	116
Flame retardants	Yes	(1)
Fixing method	Mechanically	
Reaction to fire according to EN 13501-1	A2	
ROOF COVERING		
A) BAILEY ATLANTIC TPO 2MM UN-BACKED		
Material	Polyolefin based waterproofing membrane with central glass fleece insert.	
Trade name	BAILEY ATLANTIC TPO 2MM UN-BACKED	
Manufacturer / Supplier	Köster Bauchemie AG	
Colour	White/ light grey	
Reinforcement (material + g/m ²)	Glass fleece, 48 g/m ²	
Thickness (mm)	2,0	1,9
Surface weight (g/m ²)	1930	1978
Flame retardants	Yes	(1)
Fixing method	Mechanically in the corners	
Reaction to fire according to EN 13501-1	E	
B) BAILEY ATLANTIC TPO 2MM FLEECE-BACKED		
Material	Polyolefin based waterproofing membrane with central glass fleece insert and backing polyester fleece	
Manufacturer / Supplier	Köster Bauchemie AG	
Backing/facing	Backing: polyester fleece 250 g/m ²	
Thickness (mm)	3	(1)
Surface weight (g/m ²) of the product as such	300	(1)
Flame retardants	Yes	
Fixing method	Mechanically	
Reaction to fire according to EN 13501-1	E	

(1) Not verifiable (2) unknown to customer

2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

a) Test reports

Name of the laboratory	Name of the sponsor	Test report ref. no.	Test method
WFRGENT nv Belgium	BAILEY TOTAL BUILDING ENVELOPE United Kingdom	19245F 19245G	CEN/TS 1187:2012: Test 4
WFRGENT nv Belgium	BAILEY TOTAL BUILDING ENVELOPE United Kingdom	19245J	CEN/TS 16459::2013 EXAP

b) Test results

Test conditions: 19245F:

	Specimen number	Time to fire penetration (min:sec)	Duration of flaming after withdrawal of test flame (min:sec)	Maximum flame spread distance (mm)
Stage 1	F-8'	Did not penetrate	00:00	110
	F-10'	Did not penetrate	00:00	110
	F-12'	Did not penetrate	00:00	130
Stage 2	F-8	Did not penetrate	(-)	(-)
	F-10	Did not penetrate	(-)	(-)
	F-12	Did not penetrate	(-)	(-)
	Average	Did not penetrate	(-)	(-)

(-) not applicable, (*) teste was not carried out (') preliminary test with the corresponding pen. test

Test conditions:19245G

- Test pitch: 0°

- Build-up: Wood particle board+glass fleece+ Bailey Atlantic TPO 2MM UN-BACKED

PRELIMINARY TEST (STAGE 1)

Parameter	Criteria				Test ^(a) results	Compliance			
	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)	Spec. 1	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)
Burn time	< 5 min	< 5 min	< 5 min	< 5 min	00:00	Yes	Yes	Yes	Yes
Flame spread distance	< 0,38 m	< 0,38 m	< 0,38 m	No limit	0,13	Yes	Yes	Yes	Yes
Penetration	None	None	None	None	None	Yes	Yes	Yes	Yes

(a) Not for extended application.

PENETRATION TEST (STAGE 2)

Parameter	Criteria			
	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)
Penetration	≥ 60 min	< 60 min ≥ 30 min	< 30 min	< 30 min
Parameter	Test ^(a) results			
	Spec. 1	Spec. 2	Spec. 3	Mean ^a
Penetration	None	None	None	None
Parameter	Compliance			
	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)
Penetration	Yes	Yes	Yes	Yes

(a) If one or two of the specimens have not failed at one hour, a time of 60 min shall be used in calculating the mean time of penetration.

3. CLASSIFICATION AND FIELD OF APPLICATION

a) Reference

This classification has been carried out in accordance with clause 9 test 4 of EN 13501-5:2016 and EN 13956:2006.

b) Classification

The roof / roof covering « **BAILEY ATLANTIC TPO 2MM UN-BACKED**» in relation to its external fire performance is classified:

B_{ROOF} (t4)

c) Direct field of application

The classification is valid for the system as described in §1 for the following conditions:

- Range of pitches: $\leq 10^\circ$

d) Extended field of application

- Layer 0: Top layer: Polyolefin based waterproofing membrane with centrally embedded glass fiber mesh, self-adhered fleece laminated on the back side.

Product(s):	BAILEY ATLANTIC TPO 2MM UN-BACKED & BAILEY ATLANTIC TPO 2MM FLEECE-BACKED
Thickness:	2,0 mm
Surface weight:	1930 g/m ²
Backing/facing	
<i>TPO 2MM UN-BACKED</i>	None
<i>TPO 2.0 F</i>	As tested
Reinforcement:	Glass fleece of 48 g/m ²
Fixation:	Mechanically on the corners

- Layer 1: Underlayer (OPTIONAL)

Product(s)	Glass fleece
Thickness:	
<i>Glass fleece</i>	0,5 mm or thinner
Surface weight (g/m ²)	
<i>Glass fleece</i>	120
Fixation:	Mechanically
Reaction to fire according to EN13501-1:	
<i>Glass fleece</i>	A2 or better

- Layer 2: Support

Range of supporting decks:	16mm Wood particle board or thicker 8mm Fiber cement board or thicker
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4. LIMITATIONS

At the time the standard EN 13501-5:2016 was published, no decision was made concerning the duration of validity of a classification document.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonised standards and technical specifications.

5. WARNING

This classification report does not represent type approval nor certification of the product.

6. CONCERNING DECLARATION OF PERFORMANCE (DoP) ACCORDING TO THE CONSTRUCTION PRODUCT REGULATION (CPR)

Annex ZA of the harmonised standard EN 13956: 2006 – “Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing” declares that a System 3 Attestation of Conformity (AoC) under the Construction Products Directive (CPD: 89/106/EEC) is required for all external fire performance declarations better than class $F_{\text{roof}}(t1, t2, t3, t4)$. Under the Construction Products Regulation (CPR: EU 305/2011) this corresponds with a System 3 of Assessment and Verification of Constancy of Performance (AVCP) as basis for a Declaration of Performance (DoP).

The classification assigned to the product in this report is appropriate to such a Declaration of Performance of the essential characteristics of the construction product by the manufacturer within the context of a System 3 Assessment and Verification of Constancy of Performance. Under the Construction Products Regulation a Declaration of Performance (DoP) is a requirement for affixing the CE marking.

PREPARED BY

APPROVED BY

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