

EXTERNAL FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-5:2016

Classification no.	2024-Efectis-R001062
Sponsor	Res-Tec Limited Castle Park Ind. Est CH6 5 XA FLINT UNITED KINGDOM
Product name	Flexitec
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1. INTRODUCTION

This classification report defines the external fire performance of **Flexitec**, hereafter referred to as the product, in accordance with the procedures given in EN 13501-5:2016.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product is defined as a roof covering.

2.2 MANUFACTURER

Res-Tec Limited
Castle Park Ind. Est
CH6 5 XA FLINT
UNITED KINGDOM

2.3 PRODUCT DESCRIPTION

- Weathering layer: Flexitec, Resin, 2% w/w%;
 - o Layer 2, application roller, usage 0.5 L/m²;
 - o Layer 1, application roller, with CSM 225 g/m², nonwoven glass fibre reinforcement, usage 1 L/m²;
- Carrier layer, thickness 2 mm;
- Primer, SA Primer, application sprayed, colour black;
- PIR, Tissue faced, thickness 50 mm, Reaction to Fire class F;
- Adhesive, application sprayed, colour green;
- Vapour barrier, thickness 0.6 mm, application self-adhesive, colour grey;
- Primer, SA Primer, application sprayed, colour black;
- Supporting deck, Sterling OSB Zero particle board, thickness 18 mm.

3. STANDARDS, REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

CEN/TS 1187:2012	Test methods for external fire exposure to roofs
EN 13238:2010	Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates
NEN 6063: 2019	Test method for external fire exposure to roofs
CEN/TS 16459:2019	External fire exposure of roofs and roof coverings – Extended application of test results from CEN/TS 1187

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Res-Tec Limited UNITED KINGDOM	2024-Efectis-R001061	CEN/TS 1187:2012

3.3 TEST RESULTS

Test method CEN/TS 1187, Test 1: Method with burning brands
Roof pitch 15°

Parameter	Criteria	Test result				Compliance [Y/N]
		1	2	3	4	
Flame spread:						
- Internal, upwards [cm]	< 70	Y	Y	Y	Y	Y
- External, upwards [cm]	< 70	Y	Y	Y	Y	Y
- Internal, downwards [cm]	< 60	Y	Y	Y	Y	Y
- External, downwards [cm]	< 60	Y	Y	Y	Y	Y
Maximum burned length:						
- Internal [cm]	< 60	Y	Y	Y	Y	Y
- External [cm]	< 80	Y	Y	Y	Y	Y
Lateral flame spread	< edges ¹⁾	Y	Y	Y	Y	Y
Burning droplets/debris falling from exposed side	None	-	-	-	-	Y
Burning/glowing particles Penetrating the roof	None	-	-	-	-	Y
Size of through openings:						
- one single opening [mm ²]	< 25	-	-	-	-	Y
- sum of all openings [mm ²]	< 4500	-	-	-	-	Y
Radius of fire spread (horizontal roof) [cm]	< 20	-	-	-	-	Y

1) Edge of the measuring zone

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 9 of EN 13501-5:2016.

4.2 CLASSIFICATION

The product, **Flexitec**, in relation to its reaction to fire behaviour is classified:

External Fire performance: B_{ROOF} (t1)

4.3 FIELD OF APPLICATION

4.3.1 Direct field of application

This classification is valid for the following product parameters:

Roofing membrane	Liquid applied polyester (As tested)
Application method	Roller (As tested)
Application rate	System thickness Approx 1.5 L/m ² (2 layers) with non-woven glass fibre reinforcement (As tested)
Colour	Dark grey (As tested)
Joints	Glass fibre, overlapping joints (As tested)

This classification is valid for the following end-use parameters

Roof pitch	0° ≤ pitch < 20°
Supporting deck	CEN/TS 1187, par. 4.4.2.2 Wood particle board deck not fire retardant treated with a density of 680 ± 80 kg/m ³ . Wooden continuous deck (≥ 16 mm) with gap not exceeding 0.5 mm Continuous non-combustible board with minimum 10 mm thickness and a density of 870 ± 50 kg/m ³ without gaps
Insulation	PIR
Thickness	50 mm (As tested)
Joints	Butt joints (As tested)

4.3.2 Extended field of application

Roofing membrane	CEN/TS 16459:2019 A.3.11
Colours	All colours (pigments included)
Thickness	≥ Tested thickness
Joints	Overlapped joints within common margins.
Adhesive	CEN/TS 16459:2019 A.4.1
Composition	As tested Can be replaced by other adhesives belonging to the same type of material.
Reaction to fire class	As tested Can be replaced by other adhesives with the same or better reaction to fire classification (CEN/TS 16459:2019 A.2)
Binder content	As tested Results are also valid if the tested solids content of another adhesive for the same type of material is within ± 15% of tested solid content.
Mass per unit area	0.068 kg/m ²
Insulation	CEN/TS 16459:2019 A.4.3
Reaction to fire class	PUR, including PIR, Reaction to Fire class F or better The same or smaller compressive strength is required.
Thickness	≥ 50 mm
Joints	Butt joints (As tested) and step joints Not-overlapping and overlapping surfaces
Vapour barrier	CEN/TS 16459:2019 A.4.4
Type of product	As tested, other vapour barriers belonging to the same group of materials
End-use parameters	
Order of layers	As tested Vapour barrier, layer below the lowest layer affected by the fire, can be replaced by any other material with the same or better reaction to fire classification. (CEN/TS 16459:2019 A.2)
Number of layers	As tested Additional sheets of glass fleece may be inserted between any succeeding layers. (CEN/TS 16459:2019 A.3.4)

Efectis Nederland is not accredited for the applied EXAP standard. Based on common practise agreed by the group of Notified Bodies EXAP reports will be issued based on 2 criteria: 1) Is the EXAP performed by a laboratory that performed at least one of the supported tests 2) Is the laboratory who performed the EXAP accredited for the respective test standard. For this report Efectis Nederland fulfils both criteria.

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

Consult classification standard and national laws and regulations for limitations on the period of validity of the classification.

5. LIMITATIONS

This classification document does not represent type approval or certification of the product.



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