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European Technical Assessment ETA-15/0142

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011:

Trade name	Protec
Holder of assessment:	Polyroof Products Limited Furness House Castle Park Industrial Estate Flint Flintshire CH6 5XA United Kingdom
Generic type and use of construction product:	Roof waterproofing
Issued on:	30 July 2015
Manufacturing plant:	Polyroof Products Limited Furness House Castle Park Industrial Estate Flint Flintshire CH6 5XA United Kingdom
This European Technical Assessment contains:	5 pages plus one Annex which forms an integral part of the document
Basis of ETA:	This European Technical Assessment is issued in accordance with Regulation (EU) No. 305/2011, on the basis of the <i>Guideline for European Technical Approval (ETAG) of Liquid-Applied Waterproofing Kits 005, Part 1 General and Part 4 Specific Stipulations for Kits Based on Flexible Unsaturated Polyester</i> Edition March 2000 (Revised March 2004) used as the European Assessment Document (EAD)



Member of EOTA

1 Technical description of the product

The kit consists of the following components:

- Protec — a flexible, modified polyester resin
- Polyroof Pigment — a pigment dispersed in polyester resin, available in two standard colours (chromite grey and light grey); other non-standard colours are available on request
- Polyroof Powder Catalyst — 50% dibenzoyl peroxide powder
- Polymat — a 450 g·m⁻² glassfibre mat for reinforcing the system
- Polygrit — an optional surface finish to provide an anti-slip surface if required
- Polyroof Quartz Sand — an alternative to Polygrit
- Uni-Primer Std — a standard primer for preparing concrete substrates
- Uni-Primer DP — an alternative primer for preparing concrete substrates
- Metallic Primer — a primer for preparing metal upstands
- Mordant T Wash — a pre-treatment for galvanized steel and zinc substrates (including upstands)
- Protec Taping Mat — a 450 g·m⁻² glassfibre reinforcing tape (as per Polymat) for use at points of weakness such as detailing, protrusions and over cracks
- Bond Breaker Tape — for use at expansion joints or construction joints to accommodate movement.

The application rates for primers/treatments are given in the following table.

Primer/treatment coverage rates

Primer/treatment	Substrate	Coverage rate (m ² ·litre ⁻¹)
Mordant T Wash	New galvanized steel and zinc	15
Metallic Primer ⁽¹⁾	Metal substrates	8-12
Uni-Primer Std ⁽¹⁾	Substrates other than metal	4-6

(1) Coverage rate is dependent on the condition of the substrate surface.

The kit is used to produce a two-coat application. The application rate, finished thickness and reinforcement are given in the following table.

Kit build-up and thickness (smooth concrete substrate⁽¹⁾)

Component	Kit build-up
Primer (m ² ·litre ⁻¹)	4-6
System	
First coat (litre·m ⁻²)	1.25-1.30
Reinforcement	Polymat
Second coat (litre·m ⁻²)	0.5
Dry film thickness (mm)	2.00-2.25

(1) When applying to very rough, uneven or heavily mineralised surfaces the coverage rate may be significantly reduced and this should be taken into account when estimating material usage.

The amount of catalyst added is dependent on the ambient substrate surface/air temperature. The percentage catalyst addition is given in the following table.

Catalyst proportion against temperature

Temperature (°C)	Catalyst addition for Polyroof Uni-Primer Std (%)	Catalyst addition for Protec (%)
3-10	4-6	4
10-15	3-4	3
15-20	3-4	2-3
20-30	2	2
30-35	2	—

2 Specification of the intended use in accordance with the applicable EAD

For use as a liquid-applied roof waterproofing on flat and pitched roofs on concrete substrates.

The provisions made in this European Technical Assessment are based on an assumed working life for the roof of 25 years. The indications given in the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

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

3.1 Mechanical resistance and stability (ER 1)

Not relevant.

3.2 Safety in case of fire (ER 2)

Characteristic	Method	Classification
External fire performance	ENV 1187 : 2002 Test 4 Classified to EN 13501-5 : 2005 + A1 : 2009	See Annex A
Reaction to fire	EN ISO 11925-2 : 2010 Classified to EN 13501-1 : 2007 + A1 : 2009	See Annex A

3.3 Health, hygiene and the environment (ER 3)

Characteristic	Method	Category
Resistance to water vapour	EN 1931 : 2000	See Annex A
Watertightness	EOTA TR-003	See Annex A
Resistance to wind loads	EOTA TR-004	See Annex A
Resistance to dynamic indentation	EOTA TR-006	See Annex A
Resistance to static indentation	EOTA TR-007	See Annex A
Resistance to fatigue movements	EOTA TR-008	See Annex A
Effect of low surface temperatures	EOTA TR-006	See Annex A
Extreme low temperatures	EOTA TR-006 EOTA TR-013	NPD
Effects of high surface temperature	EOTA TR-007	See Annex A
Resistance to heat ageing	EOTA TR-011 EN ISO 527-4 : 1996 EOTA TR-006 EOTA TR-008	
UV radiation in the presence of water	EOTA TR-010 EN ISO 527-4 : 1996 EOTA TR-006	See Annex A
Resistance to water ageing	EOTA TR-012 EOTA TR-004 EOTA TR-007	See Annex A

3.4 Safety in use (ER4)

Characteristic	Method	Category
Resistance to wind loads	EOTA TR-004	See Annex A
Resistance to water ageing	EOTA TR-012	See Annex A
Slipperiness	EOTA TR-004 SS 92 3515	See Annex A

3.5 Protection against noise (ER 5)

Not relevant.

3.6 Energy economy and heat retention (ER 6)

Not relevant.

3.7 Related aspects to serviceability

Characteristic	Method	Category
Comparative testing of tensile properties – variation in installation temperature	EN ISO 527-4 : 1996 EOTA TR-006	See Annex A
Effects of day joints	EOTA TR-004	See Annex A

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

According to the Decision 98/599/EC⁽¹⁾ and amended by Decision 2001/596/EC of the European Commission⁽²⁾, the system of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use	Level or class	System
Liquid applied roof waterproofing kits	For all roof waterproofing uses	–	3

(1) Official Journal of the European Communities L 287 of 24.10.1998

(2) Official Journal of the European Communities L 209 of 02.08.2001

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

The manufacturer must make a declaration of conformity, stating that the construction product is in conformity with the provisions of the European Technical Assessment.



On behalf of the British Board of Agrément

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ANNEX A CATEGORISATION OF LEVELS OF PERFORMANCE OF PROTEC

This annex applies to the Protec roof waterproofing kit described in the main body of the European Technical Assessment.

The substrate applicable to this kit is defined in the main body of the European Technical Assessment.

The kit has the following characteristics:

- water vapour diffusion (equivalent air layer thickness) — S_d — 57 m
- resistance to wind loads — >50 kPa
- assembled kit thickness — 2.0 mm to 2.25 mm

The categorisation of levels of performance in accordance with ETAG 005 are:

- External fire performance — $B_{ROOF}(t4)$
- Reaction to fire — Euroclass F
- Categorisation by working life — W3
- Categorisation by climatic zones — M
- Categorisation by imposed loads — P4
- Categorisation by roof slope — S1 to S4
- Categorisation by surface temperature
 - lowest — TL3
 - highest — TH4
- Statement on dangerous substances — none contained
- Root resistance — NPD
- Slipperiness — NPD.

