



UL INTERNATIONAL (UK) LTD
 Womersley House, Building C,
 The Guildway,
 Old Portsmouth Road,
 Guildford. GU3 1LR.
 United Kingdom.



designated according to Article 29 of the Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment, www.eota.eu)

European Technical Assessment

ETA 18/0903 of 14/02/2019

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

Trade name of the construction product

Protecta FR ASF

Product family to which the construction product belongs

Fire Stopping and Sealing Product:
 • Penetration Seals

Manufacturer

Polyseam Ltd
 15. St. Andrews Road
 Huddersfield, West Yorkshire
 HD1 6SB, UK

Manufacturing plant(s)

Polyseam Ltd
 15. St. Andrews Road
 Huddersfield, West Yorkshire
 HD1 6SB, UK

This European Technical Assessment contains

10 pages including 1 Annex which forms an integral part of this assessment.

This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of

EAD 350454-00-1104, September 2017.

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I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

- 1) Protecta FR ASF is a sealant used to form a penetration seal around metallic pipes, plastic pipes and electrical cables to reinstate the fire resistance performance of wall constructions, where they have been provided with apertures for the penetration of services.
- 2) The Protecta FR ASF is supplied in liquid form contained within 310 ml cartridges. The sealant is gunned into the aperture in the separating element/elements and around the service or services, to a specified depth utilising mineral fibre insulation backing material.
- 3) Polyseam AS submitted a written declaration that Protecta FR ASF is in compliance with Council Directive 76/769/EEC of 27th July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations (incl. all amendments and adaptations).

All dangerous chemical substances ≥ 1.0 % w/w as well as all toxic, carcinogenic, toxic for reproduction and mutagenic chemical substances ≥ 0.1 % w/w (Status: 29. adaption – 2004/73/EG – of the EU directive 67/548/EEC - classification, packaging and labelling of dangerous substances) are stated in Polyseam's safety data sheet (according to 91/155/EEC including amendments) and have been considered for the classification of the products according to the directive 1999/45/EG (classification of preparations, including amendments).

All dangerous chemical substances are below the classification limits of 67/548/EEC..

In addition to the specific clauses relating to dangerous substances contained in this European Technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): EAD 350454-00-1104

Detailed information and data is given in Annex A.

- 1) The intended use of system Protecta FR ASF is to reinstate the fire resistance performance of flexible wall constructions, rigid wall constructions and rigid floor constructions where they are penetrated by various metal pipe services with and without combustible insulation, plastic pipes and electrical cables.
- 2) The specific elements of construction that the system Protecta FR ASF may be used to provide a penetration seal in, are as follows:
 - a. Flexible walls: The wall must have a minimum thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
 - b. Rigid walls: The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³.

* no part of the penetration seal may be closer than 100 mm to a stud, the cavity must be closed between the penetration seal and the stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

- 3) The system Protecta FR ASF may be used to provide a penetration seal with specific, single insulated metal pipes, uninsulated metal pipes, plastic pipes and specific electrical cables, single or in a bundle (for details see Annex A).
- 4) Apertures in the separating element shall be maximum 74 mm diameter. The annular space/gap around the services shall be infilled with Protecta FR ASF. Blank seals are not permitted. For full details, see Annex B.
- 5) Pipes shall be supported at maximum 180 mm away from both faces of the wall constructions and from the upper face of floor constructions.
- 6) The provisions made in this European Technical Assessment are based on an assumed working life of the Protecta FR ASF of 25 years, provided that the conditions laid down in sections 4.2/5.1/5.2 for the packaging/transport/ storage/installation/use/repair are met. The indications given on 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.
- 7) Type Z₂: Intended for uses in internal conditions with humidity lower than 85 % RH excluding temperatures below 0°C, without exposure to rain or UV.

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

Product-type: Sealant		Intended use: Penetration Seal	
Basic requirement for construction work	Essential characteristic	Performance	
BWR 2 Safety in case of fire			
EN 13501-1	Reaction to fire	Class F (untested)	
EN 13501-2	Resistance to fire	Annex A	
BWR 3 Hygiene, health and environment			
EN 1026	Air permeability	No performance determined	
EAD 350454-00-1104, Annex C	Water permeability	No performance determined	
Declaration of manufacturer & EN 16516	Content, emission and/or release of dangerous substances	Declaration of manufacturer	
BWR 4 Safety in use			
EOTA TR 001:2003	Mechanical resistance and stability	No performance determined	
EOTA TR 001:2003	Resistance to impact/movement	No performance determined	
EOTA TR 001:2003	Adhesion	No performance determined	
EAD 350454-00-1104, Clause 2.2.9	Durability	Z ₂	
BWR 5 Protection against noise			
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sound insulation	No performance determined	
BWR 6 Energy economy and heat retention			
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 14683, EN ISO 10211, EN ISO 10456	Thermal properties	No performance determined	
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour permeability	No performance determined	

4 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE

According to the decision 1999/454/EC – Commission Decision of date 22nd June 1999 on the procedure for attesting the conformity of construction products pursuant to Article 20(2) of Council Directive 89/106/EEC as regards fire stopping, fire sealing and fire protective products, published in the Official Journal of the European Union (OJEU) L178/52 of 14/07/1999, see <http://eur-lex.europa.eu/JOIndex.do> of the European Commission¹, as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table(s) applies (apply).

Product(s)	Intended use(s)	Level(s) or class(es)	System(s)
Fire stopping and Fire Sealing Products	For fire compartmentation and/or fire protection or fire performance	Any	1

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

Tasks of the manufacturer:

Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall ensure that the product is in conformity with this European Technical Assessment.

The manufacturer may only use initial / raw / constituent materials stated in the technical documentation of this European Technical Assessment.

The factory production control shall be in accordance with the Control Plan of 11th September 2013 relating to the European technical assessment ETA 18/0903 issued on 14/02/2019 which is part of the technical documentation of this European technical approval. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at UL International (UK) Ltd.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

¹ Official Journal of the European Communities L178/52 of 14/7/1999

Other tasks of the manufacturer

Additional information

The manufacturer shall provide a technical data sheet and an installation instruction with the following minimum information:

(a) Technical data sheet:

- Field of application:
- Building elements for which the linear joint seal or penetration seal is suitable, type and properties of the building elements like minimum thickness, density, and - in case of lightweight constructions – the construction requirements.
- Limits in size, minimum thickness etc. of the joint or penetration seal
- Construction of the linear joint seal or penetration seal including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.
- Services which the penetration seal is suitable, type and properties of the services like material, diameter, thickness etc. in case of pipes including insulation materials; necessary/allowed supports/fixings (e.g. cable trays)

(b) Installation instruction:

- Steps to be followed
- Procedure in case of retrofitting
- Stipulations on maintenance, repair and replacement

6 Issued on:

14th February 2019

Report by:



D. Yates
Project Engineer
Building and Life Safety Technologies

Reviewed by:



C. Johnson
Staff Engineer
Building and Life Safety Technologies

For and on behalf of UL International (UK) Ltd.

ANNEX A – Resistance to Fire Classification – Protecta FR ASF

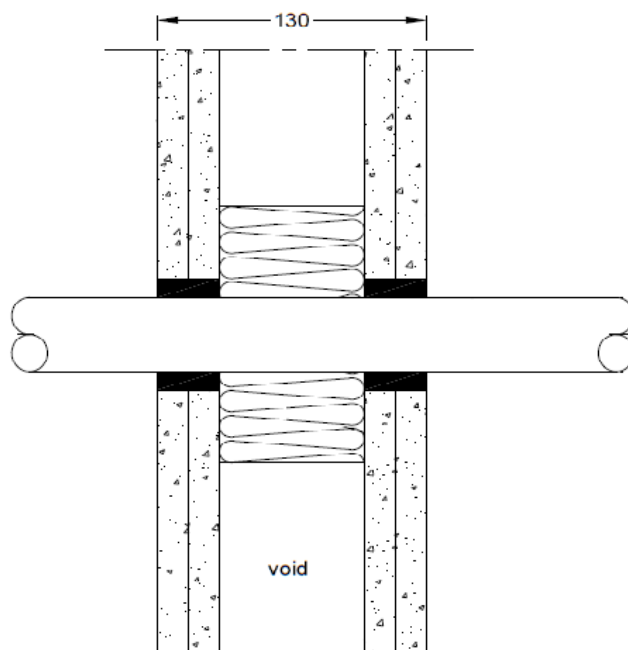
A.1 Flexible and rigid wall constructions according to 2.1 with wall thickness of minimum 130 mm

A.1.1 Double side penetration seal

Penetration Seal: Pipe (single) fitted centrally within the aperture, with 30 mm deep Protecta FR ASF Sealant to both sides of the wall, backed to full depth (min. 70 mm), stone wool insulation minimum 33kg/m³.

Flexible wall construction: Minimum 2 layers of 15 mm thick Type F (EN520) gypsum board on both sides of 70 mm deep steel studs, with no cavity insulation.

Construction details:



A.1.1.1

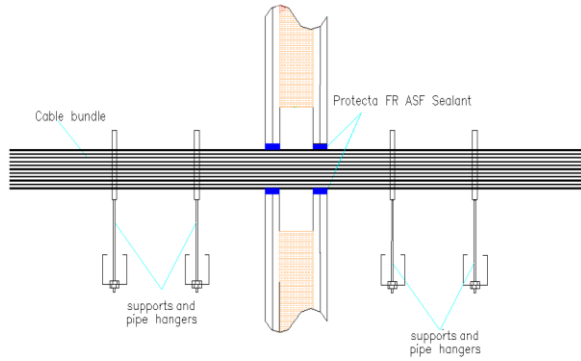
Services	Sealant depth	Backing	Aperture \varnothing	Classification
Steel pipe 42 -219 mm diameter and 7.5 – 14.2 mm wall	30 mm	Full depth (min. 70 mm) stone wool insulation minimum 33kg/m ³	Pipe + 20 mm	E 120 C/U EI 15 C/U
Copper pipe 28 mm diameter and 1.0 – 14.0 mm wall				E 120 C/U EI 90 C/U
Copper pipe 42 mm diameter and 1.0 – 14.0 mm wall				E 120 C/U
PP (according to EN 1451-1) 42 mm diameter and 4.0 mm wall				EI 120 U/C, EI 120 C/C
MDPE (PE pipe according to EN 1519-1, EN 12201-2 and EN 12666-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1) 32 mm diameter and 3.0 mm wall				

A.2 Flexible and rigid wall constructions according to 2.1 with wall thickness of minimum 100 mm

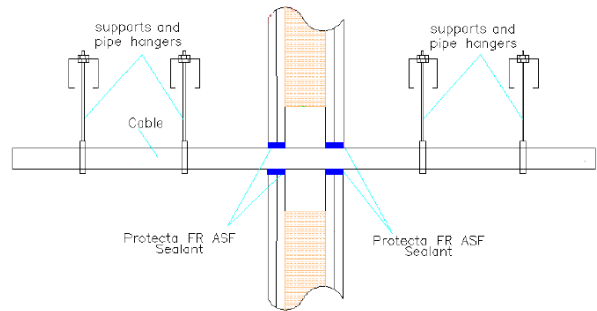
A.2.1 Double side penetration seal with cables

Penetration Seal: Cables (single or in bundles) fitted at any position within the aperture, with 25 mm Protecta FR ASF to both sides of the wall. Minimum annular space 10 mm (A1) and minimum separation between penetration seals 30 mm (A2).

Construction details:



Construction details:



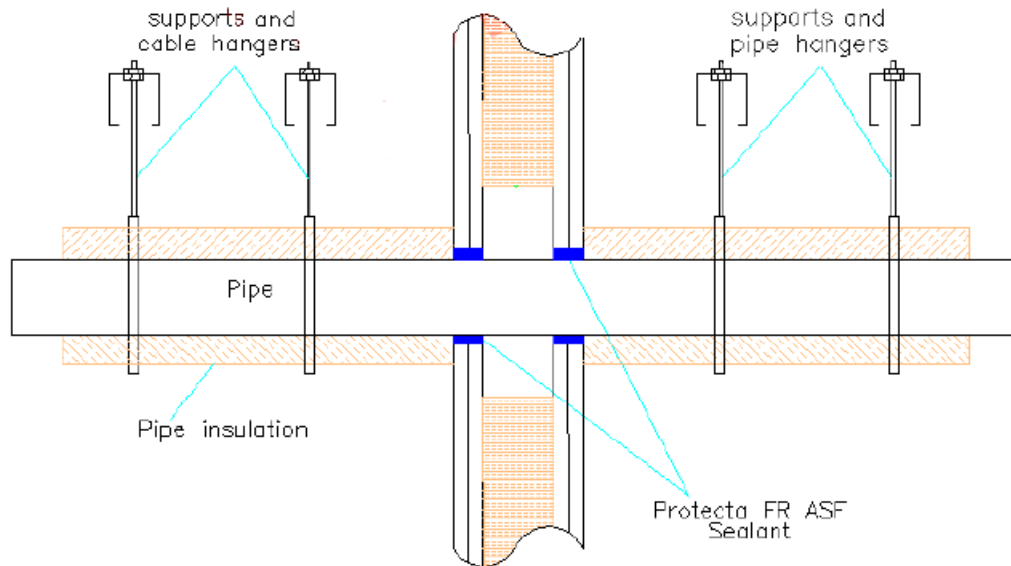
A.2.1.1

Services	Sealant depth	Classification
Cables up to 21 mm diameter in tied bundles up to 50 mm diameter	25 mm	EI 120
Electrical cables up to 21 mm \varnothing , single		E 120, EI 60
Electrical cables up to 50 mm \varnothing , single		E 120, EI 30

A.2.2 Double side penetration seal with metallic pipes

Penetration Seal: LI (Local Interrupted) of minimum length stated below or CI (Continuous Interrupted) insulated metallic pipes fitted at any position within the aperture, with 25 mm Protecta FR ASF to both sides of the wall. Minimum annular space 10 mm (A1) and minimum separation between penetration seals 30 mm (A2).

Construction details:



A.2.2.1

Services		Sealant depth	Classification
Steel or copper pipes up to 54 mm diameter/1.2-14.2	25 mm	Minimum 600 mm long and minimum 20 mm thick glass- or stonewool insulation at minimum 75 kg/m ³	E 120 C/C, EI 60 C/C