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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 13/1076 of 07/01/2014

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

FOMOheat
 FOMOheat PRO
 (2 references for the same product)

Product family to which the construction product belongs

Fire Stopping and Sealing Product:
 • Penetration Seals

Manufacturer

Polypag AG
 Tiefenackerstrasse 52
 CH-9450 Altstätten
 Schweiz

Manufacturing plant(s)

B/001

This European Technical Assessment contains

11 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

ETAG 026-2, edition 2011, used as European Assessment Document (EAD).

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

- 1) FOMOheat/FOMOheat PRO (2 references for the same product) is a fire resistant, expanding foam used to form a penetration seal around metallic 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. FOMOheat and FOMOheat PRO are identical products but are branded and packaged differently.
- 2) The FOMOheat/FOMOheat PRO is supplied contained, premixed within steel canisters providing a yield of up to 38 litres. The foam is sprayed into the aperture in or between the separating element/elements and where appropriate around the service or services, to a specified depth utilising various backing materials or in some cases no backing material.
- 3) Polypag AG has presented a declaration that FOMOheat/FOMOheat PRO are compliant with the requirements of current EU legislation on Chemical Safety and specifically that:
 - All requirements of the REACH regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals with its most recent adaptations to the technical progress are met:
 - The products don't contain any substance requiring an authorisation according to Annex XIV of this regulation and no substance of the candidate list of substances of very high concern above the acceptable limit of 0.1 %.
 - Further the requirements of annex XVII no. 56 for mixtures containing methylenediphenyl-diisocyanate are met, according to the regulation (EC) No 552/2009 (packaging containing protective gloves and being marked with additional precautionary text).
 - The safety data sheets are compliant with annex II of the REACH regulation in its most recent version, according to regulation (EU) No 453/2010.
 - All requirements of the EU DPD directive 1999/45/EC concerning the classification, packaging and labelling of Dangerous Preparations, including amendments are met:
 - 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: annexe VI, table 3.2 of the CLP regulation and regulation (EC) No 790/2009 - the first adaptation to the technical progress) are stated in the safety data sheets.
 - All these substances have been considered for the classification and labelling of the products according to the DPD directive.

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.

- 4) The following information regarding the product contained within the aerosol before installation and the finished product has also been provided:

Product in aerosol in liquid state before final chemical reaction to produce the foam once the contents have been extruded

- No ingredients contained have been classified as Mutagenic
- The aerosol contains MDI (Isocyanates) which have been classified as "POSSIBLE" carcinogens
- TCPP (Tris (chloro propyl) phosphate) is included as a fire retardant. CAS number 13674 – 84 – 5
- No microbiological agents are contained

Cured foam once the final polymerising reaction has taken place after the contents have been extruded.

- After the reaction the contents have changed into a different final product. The Isocyanates have reacted to form the foam and are no longer there in their own right. They have changed into the foam which is safe.
- The fire retardants still remain but they are “Locked-in” to the cured foam.

2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): ETAG 026-2

Detailed information and data is given in Annex A.

- 1) The intended use of system FOMOheat/FOMOheat PRO is to reinstate the fire resistance performance of rigid wall constructions where they are penetrated by various metal pipe services with and without combustible insulation and electrical cables.
- 2) The specific elements of construction that the system FOMOheat/FOMOheat PRO may be used to provide a penetration seal in, are as follows:
 - a. Rigid walls: The wall must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³.

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

- 3) The system FOMOheat/FOMOheat PRO may be used to provide a penetration seal with specific single insulated metal pipes, uninsulated metal pipes and with specific electrical cables, single or in a bundle (for details see Annex A).
- 4) Apertures in the separating element shall be maximum 100 mm diameter. Depending upon the requirements specified in Annex A the annular space/gap around the services shall be infilled with stone wool insulation material backing material and FOMOheat/FOMOheat PRO foam or just with FOMOheat/FOMOheat PRO foam. Blank seals (without services) are not permitted. For full details, see Annex A.
- 5) Pipes shall be supported at maximum 350 mm away from both faces of the wall construction.
- 6) The provisions made in this European Technical Assessment are based on an assumed working life of the FOMOheat/FOMOheat PRO of 10 years, provided that the conditions laid down in the manufacturer’s instructions/datasheet 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 Y_{2 (-5°/70°C)}: Intended for use at internal or external sheltered conditions with high or other humidity classes, including temperatures below 0°C but without exposure to rain or UV. Includes classes Z₁ & Z₂.

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

Product-type: Foam		Intended use: Penetration Seal
Basic requirement for construction work	Essential characteristic	Performance
	Mechanical resistance and stability	
-	None	Not relevant
Safety in case of fire		
EN 13501-1	Reaction to fire	Class F (untested)
EN 13501-2	Resistance to fire	Annex A
Hygiene, health and environment		
EN 1026:2000	Air permeability (material property)	No performance determined
ETAG 026-2, Annex C	Water permeability (material property)	No performance determined
Declaration of manufacturer	Release of dangerous substances	Declaration of manufacturer
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
Protection against noise		
EN 10140-2/ EN ISO 717-1	Airborne sound insulation	No performance determined
Energy economy and heat retention		
EN 12664, EN 12667 or EN 12939	Thermal properties	No performance determined
EN ISO 12572 EN 12086	Water vapour permeability	No performance determined
General aspects relating to fitness for use		
ETAG 026-2, Annex B, B.6.2	Durability and serviceability	Y ₂

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 16th January 2013 relating to the European Technical Assessment ETA 13/1076 issued on 07/01/2014 which is part of the technical documentation of this European Technical Assessment. 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 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 penetration seal
- Construction of the 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:

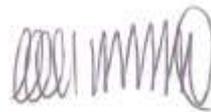
7th January 2014

Report by:



C. Johnson
Staff Engineer
Built Environment Sector

Reviewed by:



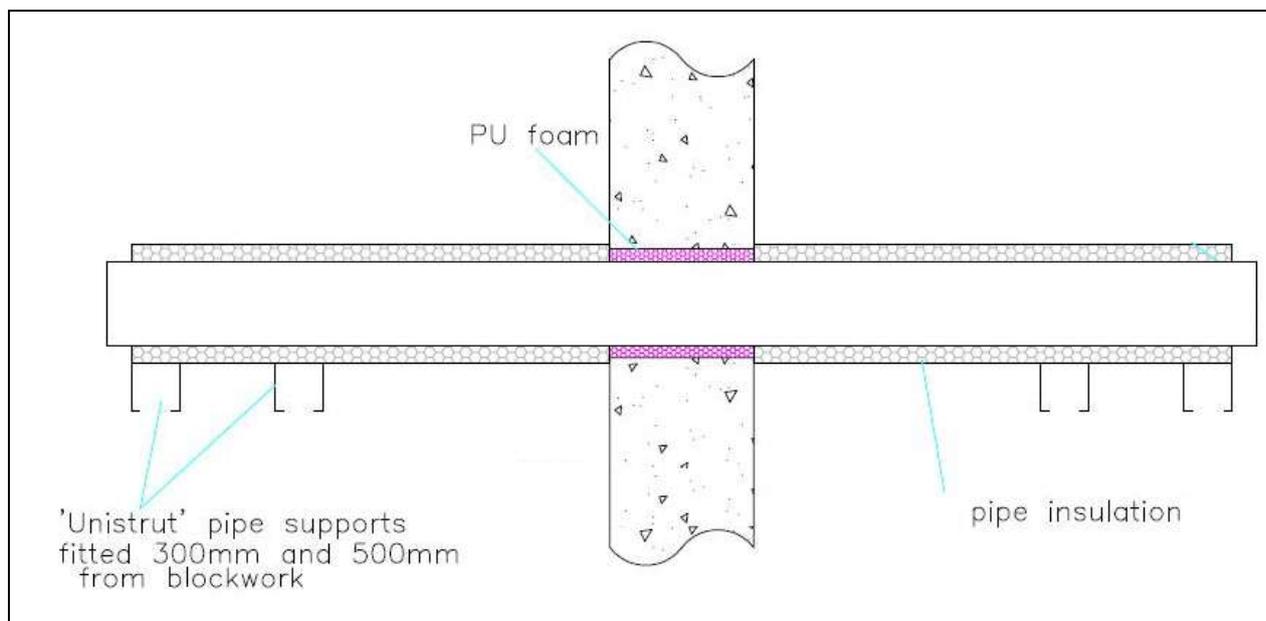
C. W. Miles
Business Manager – Europe & Latin America
Built Environment Sector

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

ANNEX A – Resistance to Fire Classification – FOMOheat/FOMOheat PRO

A.1 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm

A.1.1 Penetration seal with metal pipe including continued interrupted (CI) or min. 500 mm long local interrupted (LI) combustible insulation

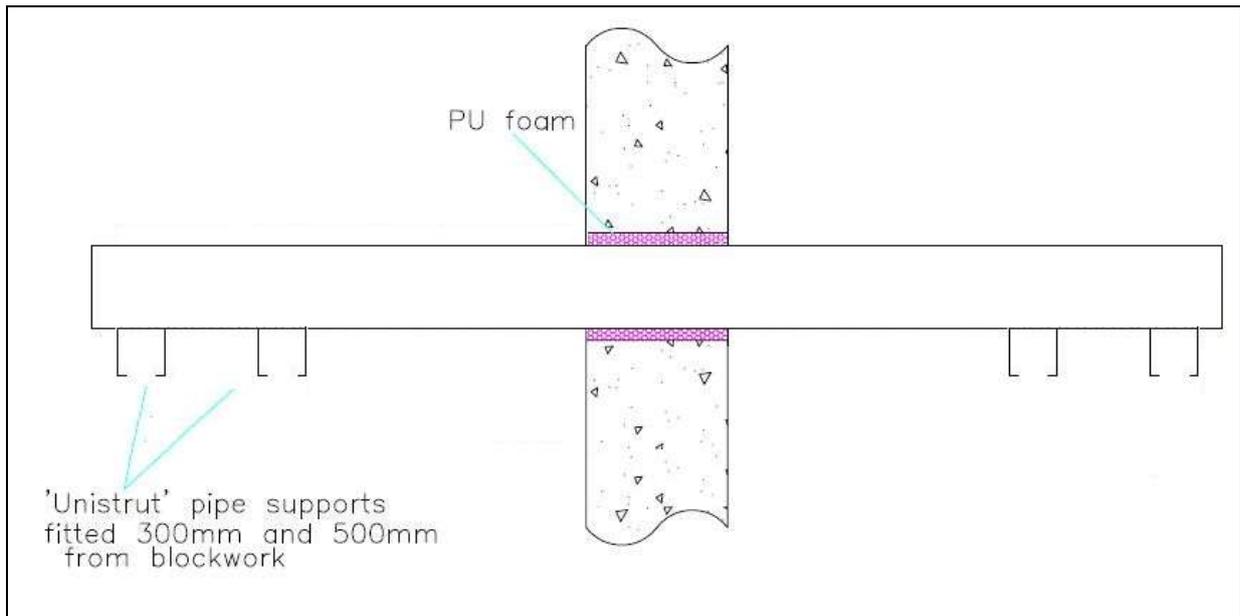


A.1.1.1

FOMOheat/FOMOheat PRO Penetration Seals in Rigid Walls 150 mm thick (min.)				
Aperture size (mm)	Seal composition	Service(s)	Position of service(s)	Classification
100 diameter	Minimum 150 mm deep FOMOheat/ FOMOheat PRO	Single steel pipe 89 mm diameter and 5.0 – 14.2 mm wall, insulated with 25 mm thick 'Class B*' Nitrile Rubber insulation	Central	EI 90 C/U
50 mm diameter		Single copper pipe 35 mm diameter and 1.2 – 14.2 mm wall, insulated with 19 mm thick 'Class B*' Nitrile Rubber insulation		

* Classified to EN 13501-1

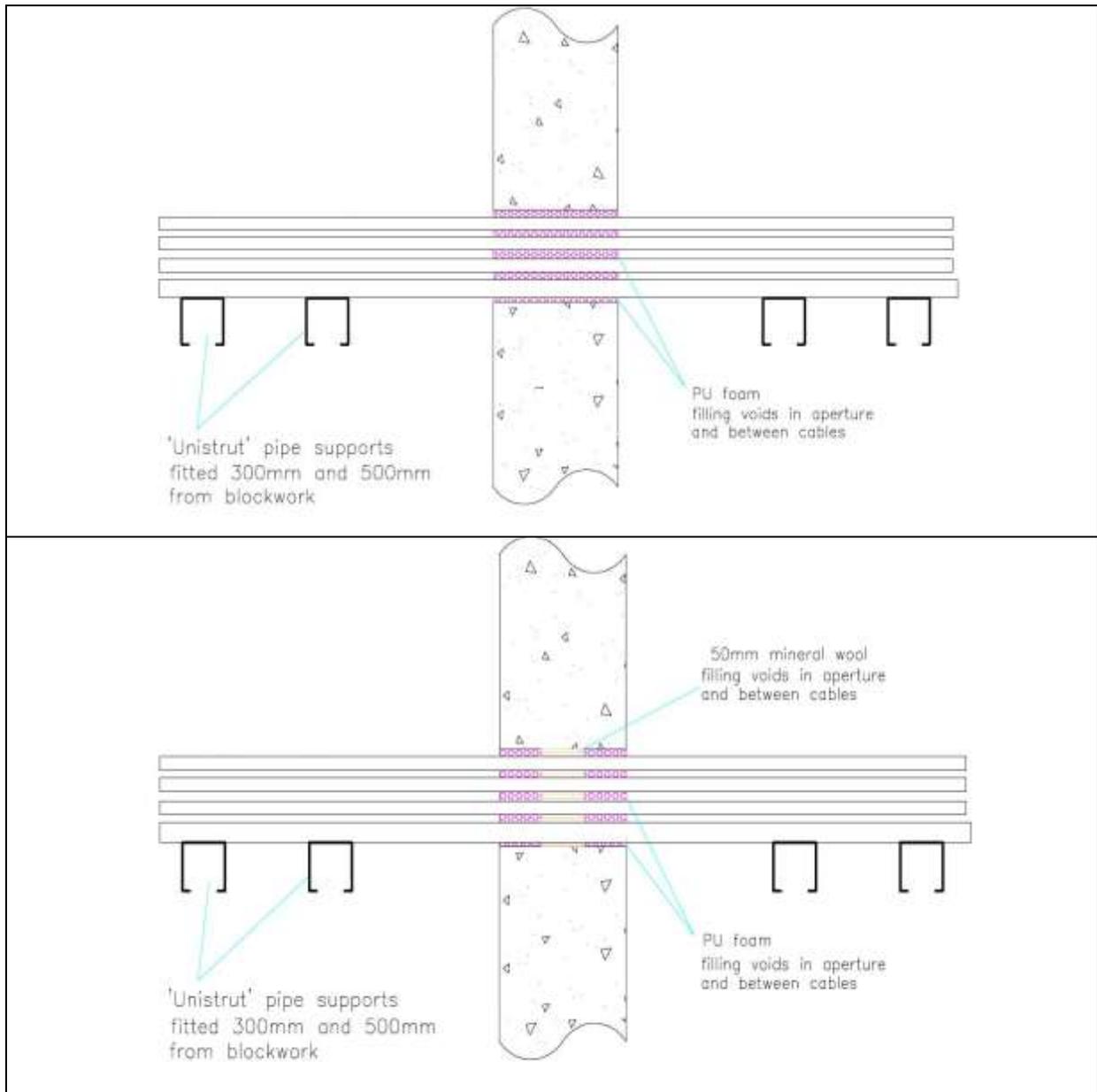
A.1.2 Penetration seal with uninsulated metal pipe



A.1.2.1

FOMOheat/FOMOheat PRO Penetration Seals in Rigid Walls 150 mm thick (min.)				
Aperture size (mm)	Seal composition	Service(s)	Position of service(s)	Classification
100 diameter	Minimum 150 mm deep FOMOheat/ FOMOheat PRO	Single steel pipe 89 mm diameter and 5.0 – 14.2 mm wall	Central	E 90 C/U EI 30 C/U
50 diameter		Single copper pipe 35 mm diameter and 1.2 – 14.2 mm wall		E 90 C/U EI 15 C/U

A.1.3 Penetration seal with cables



A.1.3.1

FOMOheat/FOMOheat PRO Penetration Seals in Rigid Walls 150 mm thick (min.)				
Aperture size (mm)	Seal composition	Service(s)	Position of service(s)	Classification
100 diameter	50 mm deep FOMOheat/FOMOheat PRO to both faces of 50 mm deep Stone wool (90 kg/m ³) backing	Bundle of up to 15 x 15 mm diameter 'A3' + 4 x 20 mm diameter 'H6943 XL2 525 H' armoured electrical cables	Central	EI 120
50 mm diameter		Bundle of up to 3 x 15 mm diameter 'A3' + 1 x 20 mm diameter 'H6943 XL2 525 H' armoured electrical cables		
	150 mm deep FOMOheat/FOMOheat PRO	Bundle of up to 7 x 15 mm diameter 'A3' + 1 x 20 mm diameter 'H6943 XL2 525 H' armoured electrical cables		
40 mm diameter		Single 30 mm H6943 XL735 H' armoured electrical cable		E 120 EI 90

A3 cable = 5 x 1.5 mm² core HD604.5 electrical cable with XLPE insulation, EVA sheath and 15 mm diameter

H6943 XL2 525 H cable = 16 mm² core, armoured electrical cable to BS 5476: 1997 with XLPE insulation, PVC sheath and 20 mm diameter

H6943 XL735 H cable = 35 mm² core, armoured electrical cable to BS 5476: 1997 with XLPE insulation, PVC sheath and 30 mm diameter