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Member of EOTA
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Designated according to Article 29 of Regulation (EU) No 305/2011

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European Technical Assessment

ETA 22/0307 of 23/08/2022

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011:	**UL International (Netherlands) B.V.**
Trade name of the construction product	Protecta FR Coating
Product family to which the construction product belongs	Fire Stopping and Sealing Product: • Linear Joint and Gap Seals
Manufacturer	Polyseam Ltd 15. St. Andrews Road Huddersfield, West Yorkshire HD1 6SB, UK www.protecta.co.uk
Manufacturing plant(s)	Polyseam Ltd 15. St. Andrews Road Huddersfield, West Yorkshire HD1 6SB, UK
This European Technical Assessment contains	13 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 350141-00-1106, September 2017.

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I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

1) Protecta FR Coating is an ablative sealant coating designed to enhance, seal and fire protect mineral fibres. It is based on a durable polymer system with inert fillers, non-halogenated fire retardants and a preservative to resist microbial attack. Protecta FR Coating is a sprayed coating product that is site or factory applied to both faces of a stone wool, mineral fibre board or site applied to one face of stone wool mineral fibre backer, to form a linear joint seal system. The intended use of Protecta FR Coating is to reinstate the fire resistance performance of floor to floor/ floor to wall joints and wall gaps. Typical locations of linear joints include floors, the perimeter of floors, walls, ceilings and roofs.

2) The Protecta FR Coating system, when factory applied/supplied is referenced Protecta FR Board.

3) The Protecta FR Coating may be applied to stone wool or ceramic wool with a density minimum 33 kg/m^3, with minimum 1.0 mm WFT (see annex A for details).

4) Polyseam Ltd submitted a written declaration that Protecta FR Coating does not contain substances which have to be classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No 1272/2008 and listed in the "Indicative list on dangerous substances" of the EGDS - taking into account the installation conditions of the construction product and the release scenarios resulting from there.

   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.

5) The use catagory of Protecta FR Coating in relation to BWR 3 (Hygiene, health and environment) is IA1, S/W2

2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): EAD 350141-00-1106

Detailed information and data is given in Annex A.

1) The intended use of Protecta FR Coating is to reinstate the fire resistance performance of gaps in and joints between rigid floors and between rigid floors and rigid wall constructions, gaps in and joints between rigid floor constructions.

2) The specific elements of construction that the system Protecta FR Coating may be used to provide a linear joint or gap seal in, are as follows:

   a. Rigid floors: The floor must have a minimum thickness of 150 mm and comprise aerated concrete, concrete, blockwork or masonry with a minimum density of 650 kg/m^3.

   b. Rigid walls: The wall must have a minimum thickness of 150 mm and comprise concrete, aerated concrete blockwork or masonry, with a minimum density of 650 kg/m^3.

   The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period. (for details see Annex A)

3) The system Protecta FR Coating may be used to provide a linear joint or gap seal with specific supporting constructions and substrates (for details see Annex A).

4) The maximum permitted joint/gap width for system Protecta FR Coating is 600 mm.

5) The maximum movement capability of system Protecta FR Board is ≤ 7.5%

6) Precautions are required to be taken to prevent a person stepping onto a horizontal linear joint seal or falling against a vertical, or sloped, linear joint seal.

7) The provisions made in this European Technical Assessment are based on an assumed working life of the Protecta FR Coating of 25 years, provided that the conditions laid down in the product 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.

8) Type Y_1: Intended for use at temperatures below 0°C with exposure to UV but no exposure to rain. Includes lower classes Y_2, Z_1, Z_2.

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

Product-type: Coating		Intended use: Linear Joint & Gap Seal
Basic requirement for construction work	Essential characteristic	Performance
BWR 2 Safety in case of fire		
EN 13501-1	Reaction to fire	D – s1, d0
EN 13501-2	Resistance to fire	Annex A
BWR 3 Hygiene, health and environment		
Declaration of manufacturer & EN 16516	Content, emission and/or release of dangerous substances	Use categories: IA1, S/W2 Declaration of manufacturer
EN 1026:2000	Air permeability (material property)	Annex B
EAD 350141-00-1106, Annex C & EN 12390-8	Water permeability (material property)	No performance determined
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 ISO 11600 & EAD 350141-00-1106, Clause 2.2.13	Adhesion	No performance determined
EAD 350141-00-1106, Clause 2.2.12	Durability	Y_1
EAD 350141-00-1106, Clause 2.2.13	Movement capacity	No performance determined
EAD 350141-00-1106, Clause 2.2.14	Cycling of perimeter seals for curtain walls	No performance determined
EAD 350141-00-1106, Clause 2.2.15	Compression set	No performance determined
EAD 350141-00-1106, Clause 2.2.16	Linear expansion on setting	No performance determined
BWR 5 Protection against noise		
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sound insulation*	Rw (C;Ctr) = 55 (-1;-1) dB
BWR 6 Energy economy and heat retention		
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 10456	Thermal properties	No performance determined
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour permeability	No performance determined
* Protecta FR Coating 1.0mm WFT on both sides of minimum 50mm thick stone wool mineral fibre board with density minimum 160kg/m^3		

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 https://eur-lex.europa.eu/oj/direct-access.html) of the European Commission[1], 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 14th October 2021 relating to the European technical assessment ETA 22/0307 issued on 23/08/2022 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 (Netherlands) B.V.

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. pipe trays)

(b) Installation instruction:

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

6 Issued on:

12th August 2022

Report by:	Verified by:	Validated by:
D. Yates	C. Johnson	Erik Teubler
Senior Project Engineer	Senior Staff Engineer	Head of TAB
Built Environment	Built Environment	Built Environment

For and on behalf of UL International (Netherlands) B.V.

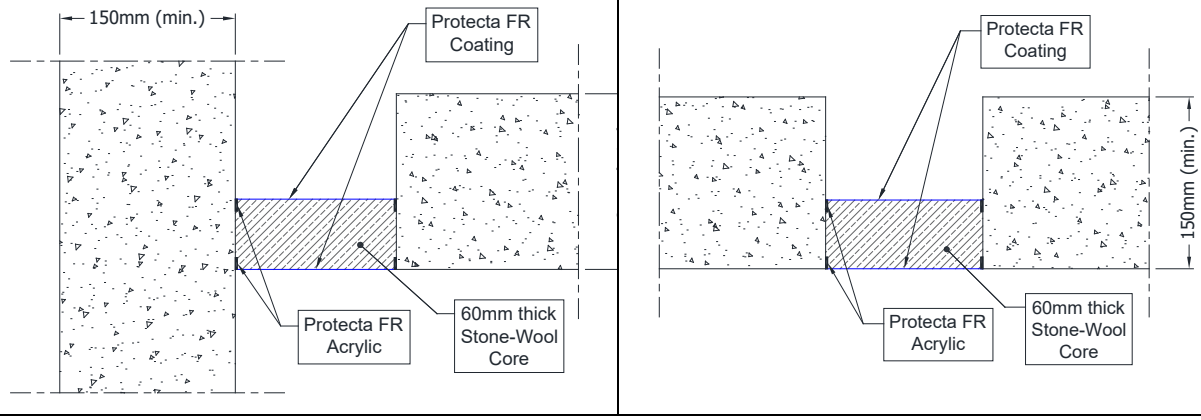
ANNEX A – Resistance to Fire Classification – Protecta FR Coating

A.1 Rigid floor constructions with thickness of minimum 150 mm

A.1.1 Linear joints in a horizontal construction, horizontal linear joints in a vertical construction and horizontal floor joints abutting a wall

Joint Seal: 60mm thick stone wool batt friction fitted fully within the cavity and sealed with FR Acrylic

Construction details:



A.1.1.1

Substrate	Depth (mm)	Backing	Classification *
masonry/ concrete	1 mm WFT min. both sides with FR Coating. Sealed at the joint and along the top and bottom edges with FR Acrylic	60 mm stone wool, mineral fibre batt min. 160 kg/m^3 at any position	**E 240 – H – X – F – W120** **EI 120 – H – X – F – W120**
masonry/ concrete/ aluminium	1 mm WFT min. both sides with FR Coating. Sealed at the joint and along the edges on the top and bottom edges with FR Acrylic	60 mm stone wool, mineral fibre batt min. 160 kg/m^3 at any position	**E 120 – H – X – F – W300** **EI 60 – H – X – F – W300** [1]
masonry/ concrete/ aluminium/ steel		60 mm stone wool, mineral fibre batt min. 160 kg/m^3 top face position	**E 120 – H – X – F – W600** **(For EI performance recorded on the seal only, please see note** [2] **below)**

*Additional and for information only.

The classifications provided in Table A.1.1.1 consider the insulation performance of all components within the firestopping system as per the requirements of EN 1366-4. This includes temperature evaluation of the metal substrates.

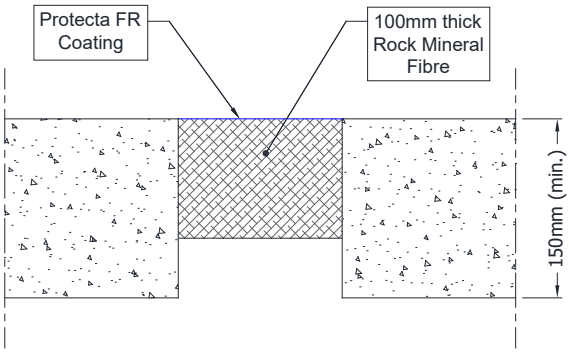
In relation to each of the above classifications, temperatures recorded on the seal (exclusive of the supporting construction) exceeded the maximum allowable after the following times (rounded down):

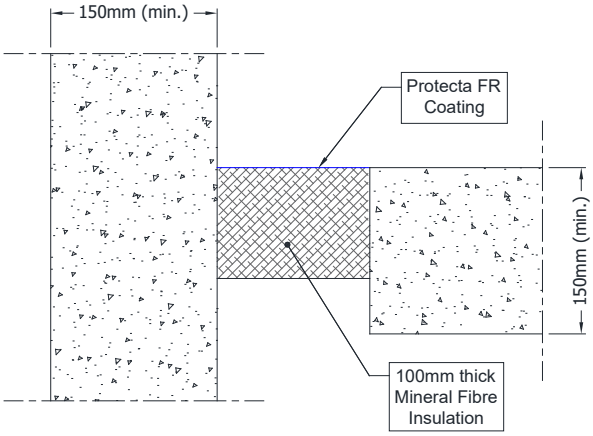
[1] 90, [2] 120

A.1.2 Linear joints in a horizontal construction, horizontal linear joints in a vertical construction and horizontal floor joints abutting a wall

Joint Seal: 100mm thick Stone wool, mineral fibre insulation friction fitted at least 50 mm above the soffit and coated on the top face with Protecta FR Coating

Construction details:





A.1.2.1

Substrate	Depth (mm)	Backing	Classification *
masonry/ concrete	1 mm WFT min. top face	100 mm stone wool, mineral fibre min. 33 kg/m^3	**E 240 – H – X – F – W120** **EI 180 – H – X – F – W120**
masonry/ concrete	1.2 mm WFT min. top face	100 mm stone wool, mineral fibre min. 80 kg/m^3, compressed into gap by 20%	**E 240 – H – X – F – W200** **EI 240 – H – X – F – W200**
masonry/ concrete/ aluminium/ steel			**E 240 – H – X – F – W200** **EI 15 – H – X – F – W200** [1]

*Additional and for information only.

The classifications provided in Table A.1.2.1 consider the insulation performance of all components within the firestopping system as per the requirements of EN 1366-4. This includes temperature evaluation of the metal substrates.

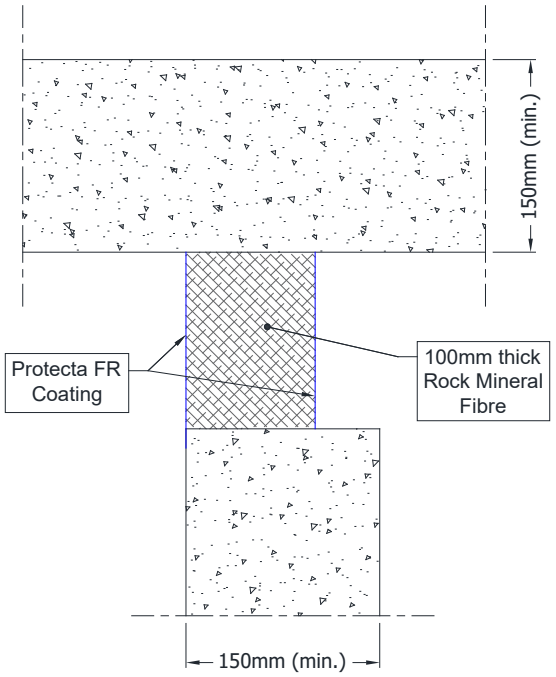
In relation to each of the above classifications, temperatures recorded on the seal (exclusive of the supporting construction) exceeded the maximum allowable after the following times (rounded down):

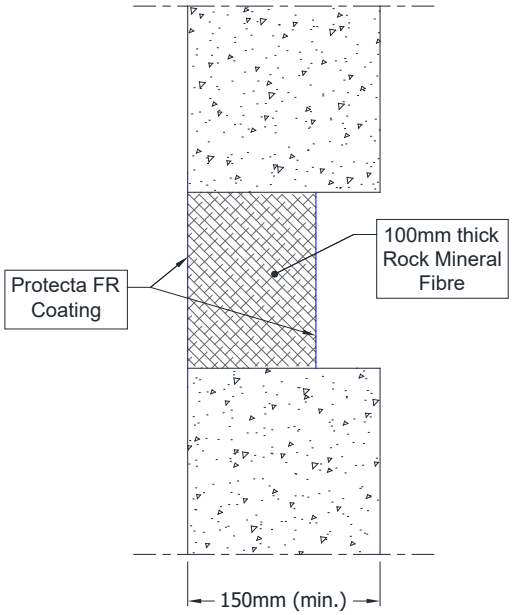
[1] 120

A.1.3 Linear joints in a vertical construction and horizontal wall joints abutting a floor, ceiling or roof

Joint Seal: Mineral fibre insulation compression fitted to either face of the wall or at any position in between and coated with Protecta FR Coating

Construction details:





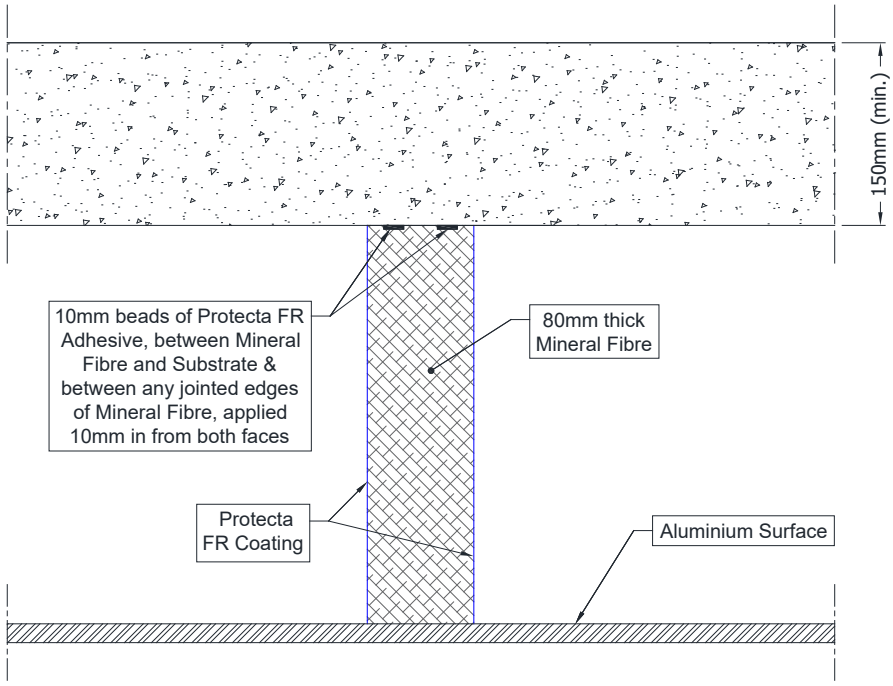
A.1.3.1

Substrate	Depth (mm)	Backing	Classification
masonry/ concrete	1.2 mm WFT min. both faces overlapped by 15 mm onto wall surface	100 mm stone wool, mineral fibre min. 35 kg/m^3, compressed into gap by 40%	**E 240 – T – X – F – W120** **EI 180 – T – X – F – W120**
	1.2 mm WFT min. single sided overlapped by 15 mm onto wall surface	100 mm stone wool, mineral fibre min. 33 kg/m^3, compressed into gap by 40%	**E 120 – T – X – F – W120** **EI 30 – T – X – F – W120**
	1.2 mm WFT min. both faces overlapped by 15 mm onto wall surface	100 mm stone wool, mineral fibre min. 80 kg/m^3, compressed into gap by 10%	**E 240 – V – X – F – W200** **EI 120 – V – X – F – W200**
	1.2 mm WFT min. single sided overlapped by 15 mm onto wall surface	100 mm stone wool, mineral fibre min. 80 kg/m^3, compressed into gap by 10%	**E 180 – V – X – F – W200** **EI 30 – V – X – F – W200**

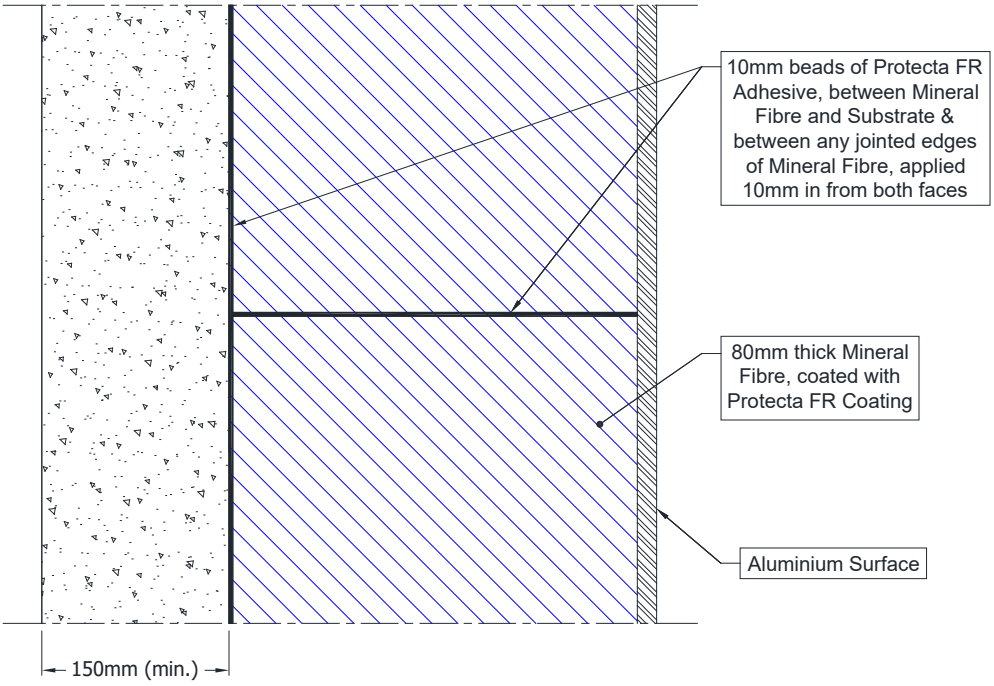
A.1.4 Vertical linear joints in a vertical construction

Joint Seal: Mineral fibre insulation compression fitted to either face of the wall or at any position in between and coated with Protecta FR Coating

Construction details: Plan View



Construction details: Side View



A.1.4.1

Substrate	Depth (mm)	Backing	Classification *
masonry/ concrete/ aluminium	1 mm WFT min. both faces with FR Coating	80 mm stone wool, mineral fibre min. 80 kg/m^3, compressed into gap by 20mm. Bonded to one vertical side of the construction and inbetween stone-wool with beads of Protecta FR Adhesive, leaving one vertical side not bonded but friction fitted	**E 180 – V – X – F – W540** **EI 30 – V – X – F – W540**

*Additional and for information only.

The classifications provided in Table A.1.4.1 consider the insulation performance of all components within the firestopping system as per the requirements of EN 1366-4. This includes temperature evaluation of the metal substrates.

In relation to each of the above classifications, temperatures recorded on the seal (exclusive of the supporting construction) exceeded the maximum allowable after the following times (rounded down):

[1] 120

ANNEX B – Air Permeability – Protecta FR Board

Product tested	1200mm high x 600mm wide Protecta FR Board 50mm 2-S		
Summary of testing procedure			Result
	Pressure (Pa)	Leakage (m^3/h)	Leakage ($m^3/m^2/h$)
Results under negative chamber pressure	25	0.00	0.00
	50	0.01	0.01
	100	0.02	0.03
	200	0.04	0.06
	300	0.11	0.15
	450	0.49	0.68
	600	0.95	1.32
Results under positive chamber pressure	25	0.00	0.00
	50	0.01	0.01
	100	0.03	0.04
	200	0.08	0.11
	300	0.2	0.28
	450	0.63	0.88
	600	1.01	1.40