ETA-Danmark A/S
Göteborg Plads 1
DK-2150 Nordhavn
Tel. +45 72 24 59 00
Internet www.etadanmark.dk

Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

MEMBER OF EOTA

European Technical Assessment ETA-20/1027 of 2020/12/08

I General Part

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

Trade name of the construction product:	PS Coating
Product family to which the above construction product belongs:	Fire Stopping, Fire Sealing & Fire Protective Products. Fire Retardant Products
Manufacturer:	FSi Ltd Westminster Industrial Estate Tamworth Rd Measham GB-Swadlincote DE12 7DS Telephone: +44 1530 515130 www.fsiltd.com
Manufacturing plant:	FSi Ltd Westminster Industrial Estate Tamworth Rd Measham GB-Swadlincote DE12 7DS Telephone: +44 1530 515130 www.fsiltd.com
This European Technical Assessment contains:	11 pages including 3 annexes which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:	EAD 350454-00-1104 Firestopping and fire sealing products, Penetration Seals, Issued September 2017
This version replaces:	-

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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1 Technical Description of the Product

1) PS Coating is an ablative coating applied to mineral wool board used to reinstate the fire resistance performance of wall constructions where they have been provided with apertures for the penetration of single or multiple services.

2) The mineral wool board is then cut and friction fit into the aperture, prior to being inserted into the aperture in the wall. The PS Coating is then applied over the surface of the board material to provide a dry film thickness of 0.7mm.

3) PS Coating is supplied in 2.5, 5, 10, 20, 25 and 205 liter pails

4) Mineral fibre boards are 50mm thick and supplied in overall dimensions 1200mm x 600mm with a density of 140kg.m^3.

5) FSi Pyrocoustic Sealant is required to seal all joints and junctions during the sealing process. Pyrocoustic Sealant is subject to a separate ETA referenced 13-1069 & 13-1070.

6) FSi Pyropro HPE Sealant is required to seal around specific services(See Annex C). Pyropro HPE Sealant is subject to a separate ETA referenced 14/0044.

2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

The intended use of PS Coating is to reinstate the fire resistance performance of rigid and flexible wall constructions where they are penetrated by various cables and metallic pipes

1) The specific elements of construction that the PS Coating may be used to provide a penetration seal in, are as follows:

   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/m^3.

   Flexible walls The wall must have a minimum thickness of 100 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, 'Type F' Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall 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, is 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.

2) The PS Coating may be used to provide a penetration seal with pipes and cables (for details see Annex C).

3) The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

4) The PS Coating may be used to seal apertures in the separating element up to 730mm wide by 1200mm high. The minimum permitted separation between adjacent seals/apertures is 200mm.

5) Pipes must be installed singular, cables require no minimum separation.

6) Services in walls shall be supported at maximum 250mm from the face of the separating element.

7) The provisions made in this European Technical Assessment are based on an assumed working life of the PS Coating of 10 years, provided that the conditions laid down in the product data sheet 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.

Use Category

Type Z_1: Intended for use in internal conditions with humidity equal to or higher 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

BWR	Characteristic	Assessment of characteristic
2	**Safety in case of fire**	
	Reaction to fire	See Clause 1.1
	Resistance to fire	See clause 1.2
3	**Hygiene, Health and the Environment**	
	Dangerous substances	See clause 2.1
4	**Safety in use**	
	Durability and serviceability	See clause 3.1
5	**Energy, Economy and Heat Retention**	

3.1 Safety in case of fire

3.1.1 Reaction to fire

No performance assessed.

3.1.2 Resistance to fire

PS Coating has been tested in accordance with BS EN 1366-3: 2009 based upon the test results and the field of direct application specified within EN 1366-3: 2009, the PS Coating has been classified in accordance with EN 13501-2, as given in Annex C:

The seals may only be penetrated by the services described in Annex C; other parts or support constructions must not penetrate the seal.

The service support construction must be fixed to the building element containing the penetration seal or a suitable adjacent building element, in such a manner that in the case of fire, no additional load is imposed on the seal. Furthermore, it is assumed that the unexposed face support is maintained for the required period of fire resistance.

Pipes must be perpendicular to the seal surface.

It is assumed that compressed air systems are switched off by other means in the case of fire.

The function of the pipe seal in case of pneumatic dispatch systems, pressurised air systems etc. is guaranteed only when the systems are shut off in case of fire.

The assessment does not cover the avoidance of destruction of the seal or of the abutting building element(s) by forces caused by temperature changes in case of fire. This has to be considered when designing the piping system.

The assessment l does not address any risks associated with leakage of dangerous liquids or gases caused by failure of the pipe(s) in case of fire.

The durability assessment does not take account of the possible effect of substances permeating through the pipe on the penetration seal.

3.2 Hygiene, Health, and the environment.

3.2.2. Content and release of Dangerous Substances

FSi Ltd has presented a declaration that PS Coating does not contain any substance of high concern with regards to REACH Regulations and are compliant with the requirements reference to http://ec.europa.eu/enterprise/construction/cpd-ds/index.cfm

Confirmation has further been declared that 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 the PS Coating safety data sheets (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 approval, 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.

3.1 Safety and accessibility in use

3.1.1 Safety and Durability

PS Coating has been tested in accordance with EOTA Technical Report - TR024 – Edition November 2006, for the type Z_1 use category specified in EAD 350454-00-1104 Fire Stopping and fire sealing products – Penetration Seals and the results of the tests have demonstrated suitability for penetration seals intended for use in internal conditions with humidity equal to or higher than 85% RH excluding temperatures below 0°C, without exposure to rain or UV.

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 of the European Commission the system of assessment and verification of constancy of performance (see Annex V to the Regulation (EU) No 305/2011) given in the following table apply:

Products	Intended uses	AVCP System
Fire stopping and fire sealing products	For fire compartmentation and / or fire protection or fire performance	System 1

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark A/S prior to CE marking

Issued in Copenhagen on 2020-12-08 by

Thomas Bruun

Managing Director, ETA-Danmark

Annex A
Reference Documents

EN 13501-1	Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests
EN 13501-2	Fire classification of construction products and building elements – Part 2: Classification using test data from fire resistance tests
EOTA TR 024	Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and Products

Annex B

Description of Product and Product Literature System PS Coating

A detailed specification of the product is contained in document "Evaluation Report" relating to the European Technical Assessment ETA – 14/0004 issued on 18/3/14, of PS Coating which is a non- public part of this ETA.

FSi DEVELOP MANUFACTURE PROTECT

PRODUCT DATA SHEET

PS COATING®
ABLATIVE COATING

Product name	PS Coating®
Product Code	FSiPSC
Revision Date	01/11/2013
Revision number	01
Ref	PDS PSC

Annex C

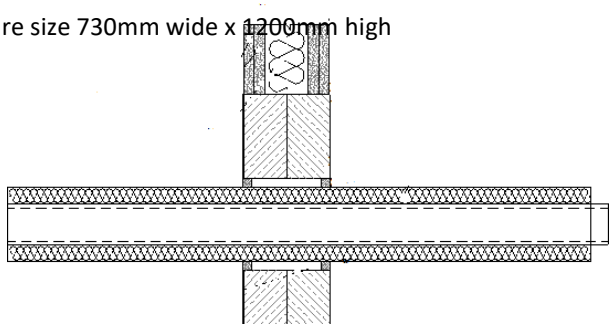
Resistance to Fire
Classification of PS Coating

C.1.1 Flexible and Rigid wall constructions according to 1.2.1 with wall thickness of minimum 100 mm

C.1.2 Penetration seal with PS Coating installed centrally within the wall

Construction details:

- Continuous/sustained insulated mettalic pipes installed at any postion within the wall(min. seperation 50mm from seal edges).
- Double layer of PS Coating installed centrally within the wall.
- Max. Aperture size 730mm wide x 1200mm high



C.1.3

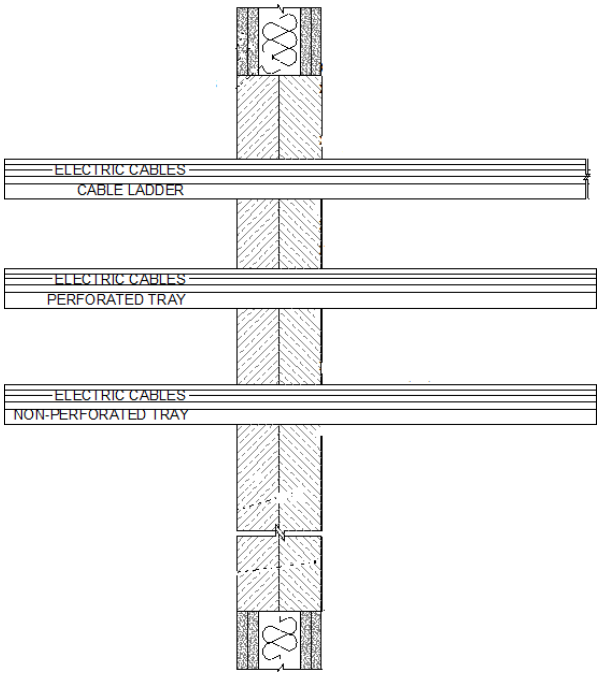
Service(s)	Insulation	Seal	Classification
Mild Steel or Copper			
40mm diameter and 1.5 – 14.2 mm wall	20mm thick foil faced glass wool insulation (min 80Kg/m^3)	15mm deep x 15mm wide annulus FSi HPE Sealant to both faces seal	**EI 60 U/C**
40-159mm diameter and 2.3 – 14.2 mm wall	30mm thick foil faced glass wool insulation (min 80Kg/m^3)		**E 60 U/C** **EI 45 U/C**

Service(s)	Insulation	Seal	Classification
Mild Steel			
40mm diameter and 1.7 – 14.2 mm wall	20mm thick foil faced glass wool insulation (min 80Kg/m^3)	15mm deep x 15mm wide annulus FSi HPE Sealant to both faces of the seal	**EI60 U/C**
40-150mm diameter and 2.3 – 14.2 mm wall	30mm thick foil faced glass wool insulation (min 80Kg/m^3)		

C2.1 Flexible and Rigid wall constructions according to 1.2.1 with wall thickness of minimum 100 mm

C.2.2 Penetration seal with PS Coating installed centrally within the wall

- Cables fitted at any posityion withjin the aperture (min. 50mm from edge seal)
- Double layer of PS Coating installed centrally within the wall.
- Max. Aperture size 730mm wide x 1200mm high



C.2.3

Service(s)	Classification
Electrical cables up to 21mm dia	**EI 60**
Electrical cables 22mm to 80mm dia	**E 60, EI 30**
Cable Trays and Ladders	**EI 60**
100 mm diameter bundle telecommunication cable type "F"	**EI 60**
Unsheathed electrical cables up to 17mm dia	**E 60, EI 15**
Unsheathed electrical cables 18-24mm dia	**E 60, EI 30**
Steel or Copper Conduits up to 16mm	**E 60, EI 15**
Plastic conduits up to 16mm	**EI 60**