

# Technical Data Sheet

## PS Coating

### UIC of product-type: PSC

Issue: 5.1  
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CE Certification  
Air Permeability  
Movement Rigid Walls  
Pipes Linear joints  
Acoustic Rating  
Trays Rigid Floors  
CE Certification  
Air Permeability



CE Certification  
Penetration Seals  
Movement Rigid Walls  
Metallic Pipes Linear  
Flexible Walls Acoustic  
Cable Trays Rigid Floors  
Plastic Pipes CE Certification  
Air Permeability



UAE Certificate of Compliance

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ETA 14-0004  
CE-1121-CPR-JA5022



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# Product Technical Data

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## Product Overview

### Technical Description of the Product

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

### PS Coating for Service Penetration and Blank Seals

PS Coating is supplied in 2.5kg, 5kg, 10kg, 20kg, 25kg pails

Mineral fibre boards are 50mm thick and supplied in overall dimensions 1200mm x 600mm with a density of 140kg/m<sup>3</sup> and a resin content of less than 4.5%.

Pyrocoustic Sealant is required to seal all joints and junctions during the sealing process.

Pyropro HPE Sealant is required to seal around specific services. Pyropro HPE Sealant is subject to a separate TDS document.

### Intended use

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 or blank seals.

- Fire Resistant testing to EN 1366-3 EI 60.
- Fire Resistant testing to EN 1366-3 EI 120 Blank Seal.
- Fire Classification to EN 13501-2.
- IET (IEE) 17th Edition Fire Stop Compliant to Regulation 527.1-3 - Electrical Installations.
- BS 7671-2008 Chapter 42 & 52 - Electrical Installations Fire Resistance.
- Fire resistance tested in flexible & rigid walls, Composite Panel and CLT.
- Air Permeability testing to EN 1026 to 600Pa.
- Acoustic Isolation testing to EN 10140 to 51dB.

### Key Product Points

- Can be spray, brush or trowel applied.
- Suitable for indoor use without additional environmental protection.
- Remains flexible between -5°C to +70°C.
- Easy to use fibre free coating.
- Life expectancy of over 25 years.
- Suitable for large openings in walls with additional supports.
- Internal use - ETAG 026-3 (used as European Assessment Document EAD) Type Z<sub>1</sub>.



# Product Technical Data

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Description	Result	Test Standard
Description	Water based flexible acrylic coating	
Colour	White / Grey / Red (others on request)	
Density	1.45 – 1.55 g/cm <sup>3</sup>	ISO 2811-1:2011
Cure Rate	0.5mm per day at 50% relative humidity 23°C	
Tack Free	6hrs at 23°C, 50% RH	
Application Temperature	+0°C to +30°C	
Coating Thickness	2.5mm Nominal, wet coating thickness	
PS Coating Coverage	2.8kg/m <sup>2</sup> , 2.24L/m <sup>2</sup>	
Fire Resistance	EI 60, EI 120	EN1366-3, EN1366-4
Classification	EN 13501-2	
Acoustic Isolation	51dB when installed with 100mm thick 140kg/m <sup>3</sup> stone wool.	EN 10140
Air Permeability	600 Pa EN 1026 - 100Pa 1.8/1.4 m <sup>3</sup> /h/m <sup>2</sup>	EN 1026
Container Size	2.5kg, 5kg, 10kg, 20kg, 25kg, 205ltr.	
Spray Pressure	Machine 90psi / Tip 6000psi / Tip Size 0.85mm	
Installation Specification	50mm Stone Wool - EI 60 100mm Stone Wool - EI 120	EN 1366-3
VOC % Nonaqueous volatiles (105°C)	4.9	LEED
Expected Shelf Life	12 months	Store in accordance with packaging instructions

## Key Installation Points

Ensure that all the requirements are met with regards to PS Coating specification.

All substrates and services must be clean, dry and free from contaminants.

All stone wool boards must be minimum 140kg/m<sup>3</sup> in density. PS Coating must be applied to a nominal thickness of 2.5mm wet film thickness (WFT) if coating the stone wool boards.

When using the PS Coating to install the stone wool boards all edges must be coated using PS Coating or Pyrocoustic Sealant prior to final fitting.

Fit the coated stone wool board as per Stopseal Batt installation guidance.



# Performance Data - Walls

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## Substrates

The walls shall be a minimum of **100mm thick**. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50mm studs. Masonry / Concrete walls shall have a minimum density for concrete or brick of 780kg/m<sup>3</sup> and for aerated concrete blocks of 600kg/m<sup>3</sup>. All walls shall have at least the same fire resistance as that required for the sealing system.

## Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 400mm from the surface of the sealing system on both faces unless specified otherwise in the performance data.

## Terminology

Fire performance in accordance with EN1366-3, EN1366-4, Classification 13501-2:2007 + A1:2009, ETAG-026, Air Permeability EN1026, Sound EN10140. Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I =Insulation, the product can withstand the temperature travelling down the service, U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

## FLEXIBLE AND RIGID 100MM

### Metallic Pipes

Flexible and Rigid wall construction with a minimum wall thickness of 100mm Penetration seal, installed centrally within the wall.			
Service(s)	Insulation	Seal	Classification
Mild Steel or Copper			
40mm diameter and 1.5 - 14.2mm wall	20mm thick foil faced glass wool insulation (min 80kg/m <sup>3</sup> ).	15mm deep x 15mm wide annulus Pyropro HPE Sealant to both faces seal	EI 60 U/C
40 - 159mm diameter and 2.3 - 14.2mm wall	30mm thick foil faced glass wool insulation (min 80kg/m <sup>3</sup> ).		E 60 U/C EI 45 U/C

Flexible and Rigid wall construction with a minimum wall thickness of 100mm Penetration seal, installed centrally within the wall.			
Service(s)	Insulation	Seal	Classification
Mild Steel			
40mm diameter and 1.7 - 14.2mm wall	20mm thick foil faced glass wool insulation (min 80kg/m <sup>3</sup> ).	15mm deep x 15mm wide annulus Pyropro HPE Sealant to both faces seal	EI60 U/C
40 - 150mm diameter and 2.3 - 14.2mm wall	30mm thick foil faced glass wool insulation (min 80kg/m <sup>3</sup> ).		

## FLEXIBLE AND RIGID

### Blank Seal

Rigid & Flexible Blank Seal Walls with a minimum thickness of 100mm.			
Aperture Size	Seal Composition	Services	Classification
730mm wide by 1200mm high	100mm of 140kg/m <sup>3</sup> stone fibre coated with PS Coating.	Blank Seal	EI 120



# Performance Data - Walls

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## FLEXIBLE AND RIGID WALL

Cables, Cable Trays and Metallic Conduits

Flexible and Rigid wall, with a minimum wall thickness of 100mm Penetration seal with system installed centrally within the wall.	
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
100mm 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



# Extended Scope of Works

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## Direct field of application – DiAP and Extended Field of Application- EXAP

DiAP and EXAP rules are an output from European harmonization of fire testing methods, classifications and product standards where applicable. At a national level, experienced persons or fire test organisations have previously provided assessments of expected performance based on expert judgement and opinion, however these rules allow interpretation through the specific EN 1366 test standard.

DiAP and EXAP rules are provided in the EN 1366 and EN 15882 test standards series. They are derived from information obtained from tests carried out in accordance with relevant EN 1366 tests at recognised laboratories in Europe. The test results achieved by a particular design may be directly applied to a limited number of variations without recourse to expert advice, providing the design remains substantially as tested. EXAPs shall be based on primary test evidence to a specific part of the EN 1366 series and may be supplemented by appropriate test evidence generated from other sources, or other relevant historical data. The EXAP rules consider changes in the tested design beyond the scope of direct application and may also consider variations to the tested design.

### Direct field of application - DiAP

Fire Stopping systems of this type are often complicated by extensive changes in modern buildings and their influence on the fire hazard should be considered carefully. The fire hazard can be reduced by providing penetration seals at the points where the services pass through fire separating elements (walls/floors).

The impact of fire on a construction or service system can vary considerably. A strict scientific approach to the problem of adequate testing of a sealing system would, therefore, be to design a series of tests each of which corresponds to a specified fire situation and arrangement. However, such an approach would probably fail due to its economic consequences, as tests of this type are very timeconsuming and costly. The method of test described in the EN 1366 series has therefore been designed with the intention of covering a wide range of fire situations in a minimum of tests. To allow a wider field of application, standard configurations are defined on the basis of general experience and historic data wherever possible. As frequently a number of influencing parameters was considered when defining the standard configurations, not all of which may be addressed explicitly in the field of direct application rules (e.g. metalscreen of cables). To allow nevertheless flexibility a modular approach was taken as far as possible so that various combinations of standard configuration elements can be used to fit the needs of the user.

Where a nonstandard configuration was used, the field of application is restricted to what was tested, however the field of direct application rules given in the various parts of the EN 1366 series may be applied, subject to deviating rules given in the annexes of each part. Rules cover supporting construction, orientation, penetrating services, service supports, penetration seal size, distances and overall configurations of penetration seal materials and services to be included.

### Extended Field of Application- EXAP

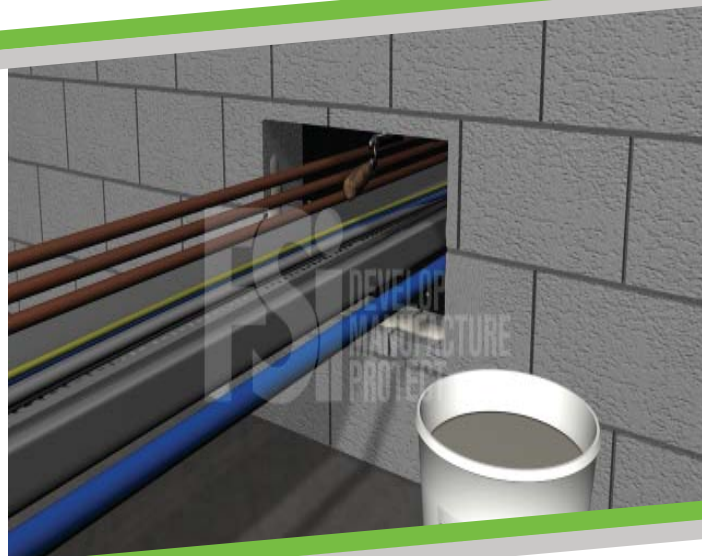
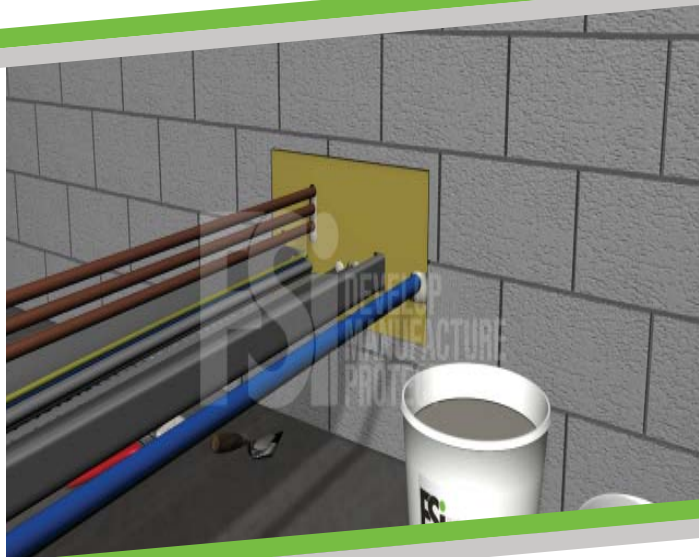
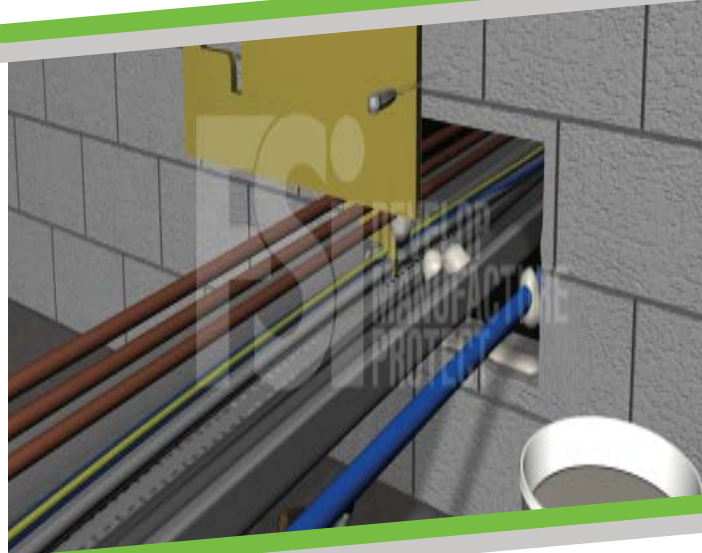
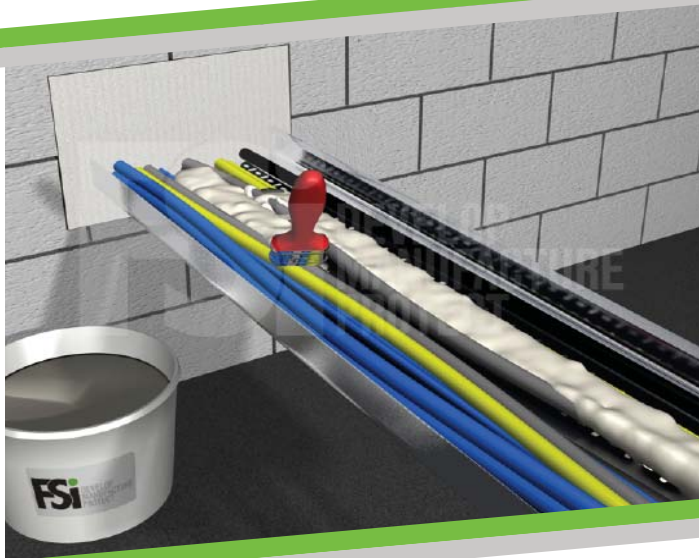
The purpose EXAP document is to provide the principles and guidance for the preparation of extended application documents for penetration sealing systems tested in accordance with the EN 1366 and EN 15882 series. The field of the extended application document is additional to the direct field of application given within the relevant part of EN 1366 and may be applied to or based on a single test, or a number of tests, which provide the relevant information for the formulation of an extended application.

There are a number of practical limitations on the size and design of elements that can be tested by the standard methods of fire resistance test. When these elements are required to be larger, or are of a modified design, there is a necessity to be able to confirm their performance, without the ability of being able to test them. To achieve this, extended application documents for the various elements are used.

Due to the diverse nature of materials and constructions used to seal openings in fire resistant separating elements it has been necessary to separate the extended application principles into generic seal types within the specific EXAP EN 15882 series. Often more than one variation is to be incorporated, should this be the case the overall effect shall be considered. Principles common to all generic seal types are given in the EXAP and rules for each specific generic seal type are given. The Annex provide rules for the application of test results and provides information relating to the extended application of those test results on for service penetrations.

Variables for each seal type, which require consideration included are as follows:

- 1) Separating element;
- 2) Type of service;
- 3) Size of service;
- 4) Seal size and configuration
- 5) Material changes (components or formulation) – comparison test approach, reduced test program
- 6) Orientation
- 7) Penetration seals at the head of walls (like a linear joint) – consider the issue of movement
- 8) Penetration seals at slab edges (like a linear joint) – consider the issue of movement
- 9) Distances of penetration seals to other openings in the separating element e.g. doors



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