

Technical Data Sheet

Pyrocoustic Sealant

UIC of product-type: PYROC

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UAE Certificate of Compliance

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APPROVED
CF517



ETA 13-1069
ETA 13-1070
CE-1121-CPR-JA5009



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Product Technical Data

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Product Overview

Technical Description of the Product

Pyrocoustic Sealant is an acrylic based sealant used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetrations of multiple services, also to form linear gap seals where gaps are present within the wall and floor constructions and linear joints where wall and floor constructions abutt.

Pyrocoustic Sealant has slight intumescent properties that cause it to swell upon heating.

The Pyrocoustic Sealant is supplied in liquid form contained within 310ml, 600ml foils or in 5kg, 10kg, 20kg or 25 kg pails. The sealant is either gunned or trowelled into the aperture in or between the separating element/elements to a specific depth utilising various backing materials.

Intended Use

The specific elements of construction for the system Pyrocoustic Sealant are as follows:

- Fire resistance testing to EN 1366-3 EI 120, EN 1366-4 EI 240 and BS 476 300mins.
- Fire resistance testing to ASTM-E 1966, UL 2079.
- CAN/UL 115-11 - ULus & ULc Listed.
- Resistance to Fire Classification EN 13501-2.
- Reaction to Fire Classification EN 13501-1
- VOC Tested - ASTM D2369-10, LEED 2009-EQ041 SCAQMD.
- Acoustic Isolation to EN 10140 to 48dB.
- Air Permeability testing to EN 1026 to 600Pa - 100Pa 0.0/0.0 m³/h/m².

Key Product Points

- Mechanical Adhesion, Tensile testing & Shore Hardness to ISO 9046:2005, ISO 8339:2005 & ISO 7619-1:2011.
- Fire resistance tested in flexible walls, rigid walls and floors.
- Tested in Linear Joints up to 50mm wide.
- Tested in large service openings up to 490 x 150mm.
- Tested with Metallic Pipes, Cables, Cable Bunches, Cable Trays and Cable Ladders.
- Causes no known effects to plastic pipes, plastic cables, sheathing or metallic components.
- For use in low movement joints, remains flexible.
- Halogen free, resists fungi and vermin.
- Certifire 3rd Party Certification CF 517.
- Shelf Life 18 months.



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Description	Result	Test Standards
Packaging	310ml cartridges 25 per box, 600ml foils, 5kg, 10kg, 20kg, 25kg pails	
Colour	White, Grey or Brown (other colours by request)	
Slump	5mm after 1hr in 30mm joints	
Shrinkage	Approximately 12%	
Cure Rate	3mm per day at 50% relative humidity 23°C	
Specific Gravity	1.52 - 1.62 g/cm ³	ISO 2811-1:2011
Application temperature	+5°C to +40°C	
Tack Free	30 mins at 23°C, 50% RH	
Water Resistance	Good when fully cured	
U.V. Resistance	Good	
Joint Movement	Remains flexible	EN 1366-4:2006 + A1:2010
Shelf Life	18 Months unopened	
VOC % Nonaqueous volatiles (105°C)	3.6	LEED
Acoustic	Up to R _w (C;C _{tr}):63(-2;-7) dB	EN ISO 10140-2:2010

Backing Material

Mineral wool (min. 80kg/m³) or PE backing rod where required can be use as backing materials, though the Pyrocoustic Sealant should be installed correctly to achieve the performance needed.

Key Installation Points

For good adhesion the surfaces of the building elements shall be free of any dust or grease and may need to be primed on good clean, virgin concrete & masonry, no priming required.

Ensure that the aperture and services in question are tested with Pyrocoustic Sealant and the site conditions are within the application specification. An annular space needs to be present around the service to apply sufficient installation depth.

All services and apertures need to be clean and clear of all dust and loose particles. The aperture temperature needs to at 5°C or above at time of installation.

Upon installation make sure that you install the Pyrocoustic Sealant around all services needed.

Once compacted, smooth off the Pyrocoustic Sealant to produce a professional finish.



Linear Joint Seals - 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. Masonary / Concrete walls shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. 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 of wall and top face of floor unless specified otherwise in the performance data.

RIGID WALL

Wall Installations :- Double Sided Seals

Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Wall Constructions (min 250mm thick)	Autoclaved aerated concrete to autoclaved aerated concrete.	20	10	Polyethylene 30mm diameter.	300	300
	Autoclaved aerated concrete to autoclaved aerated concrete.	30	15	Polyethylene 40mm diameter.	300	210
	Autoclaved aerated concrete to autoclaved aerated concrete.	40	20	Polyethylene 50mm diameter.	300	210
	Autoclaved aerated concrete to autoclaved aerated concrete.	50	25	Polyethylene 60mm diameter.	300	210
	Brick to Autoclaved aerated concrete.	15	10	Polyethylene 20mm diameter.	240	0
	Brick to Autoclaved aerated concrete.	25	10	Polyethylene 30mm diameter.	240	30
	Steel to aerated blockwork.	30	15	Polyethylene 40mm diameter.	300	90
	Steel to aerated blockwork.	50	25	Ethafoam 50mm diameter.	60	30
	Hardwood to aerated blockwork.	50	25	Ethafoam 50mm diameter.	60	60
	Softwood to aerated blockwork.	25	12	Ethafoam 30mm diameter.	30	30



Linear Joint Seals - Walls

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RIGID WALL

Wall Installations :- Single Sided Seals - Sealant installed to either side of wall						
	Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Wall Constructions (min 100mm thick)	Autoclaved aerated concrete to autoclaved aerated concrete.	50	25	Polyethylene 50mm diameter.	120	60
	Autoclaved aerated concrete to autoclaved aerated concrete.	20	10	Polyethylene 20mm diameter.	120	45
	Autoclaved aerated concrete to softwood.	50	50	Polyethylene 50mm diameter.	45	45
	Autoclaved aerated concrete to softwood.	20	10	Polyethylene 20mm diameter.	30	20
	Autoclaved aerated concrete to steel.	50	50	Polyethylene 50mm diameter.	45	30
	Autoclaved aerated concrete to steel.	20	10	Polyethylene 20mm diameter.	120	20

Wall Installations :- Single Sided Seals						
	Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Wall Constructions (min 100mm thick)	Autoclaved aerated concrete to autoclaved aerated concrete.	50	25	Polyethylene 50mm diameter.	120	60
	Autoclaved aerated concrete to autoclaved aerated concrete.	40	20	Polyethylene 40mm diameter.	120	30
	Autoclaved aerated concrete to autoclaved aerated concrete.	30	15	Polyethylene 30mm diameter.	120	30
	Autoclaved aerated concrete to autoclaved aerated concrete.	20	10	Polyethylene 20mm diameter.	120	30
	Autoclaved aerated concrete to softwood.	50	25	Polyethylene 50mm diameter.	45	30
	Autoclaved aerated concrete to softwood.	40	20	Polyethylene 40mm diameter.	30	15
	Autoclaved aerated concrete to softwood.	30	15	Polyethylene 30mm diameter.	30	15
	Autoclaved aerated concrete to softwood.	20	10	Polyethylene 20mm diameter.	30	15
	Autoclaved aerated concrete to steel.	50	25	Polyethylene 50mm diameter.	45	30
	Autoclaved aerated concrete to steel.	40	20	Polyethylene 40mm diameter.	45	30
	Autoclaved aerated concrete to steel.	30	15	Polyethylene 30mm diameter.	45	30
	Autoclaved aerated concrete to steel.	20	10	Polyethylene 20mm diameter.	120	15



Linear Joint Seals - Walls

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RIGID WALL

Wall Installations :- Double Sided Seals						
Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
Wall Constructions (min 120mm thick) Drywall to autoclaved aerated concrete.	20	12.5 (both faces)	Polyethylene 20mm diameter.	120	120	
Wall Constructions (min 100mm thick) Autoclaved aerated concrete to autoclaved aerated concrete.	20	12.5 (both faces)	Polyethylene 20mm diameter.	120	120	

FLEXIBLE AND RIGID WALL

Sealing of Drywall Head & Flexible Wall To Rigid Wall - Double Sided Seals						
Product Name		Pyrocoustic Sealant				
Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Seal Orientation	Integrity (mins)	Insulation (mins)	
Wall Constructions (min 120mm thick)	Gypsum plasterboard + steel head track/Rigid floor.	20	25 (both faces)	Horizontal	120	120
	Gypsum plasterboard + steel vertical edged tracks/Rigid floor.	20	25 (both faces)	Vertical	120	120



Linear Joint Seals - Floors

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Substrates

The floors shall be a minimum of **150mm thick**. Masonry / Concrete floors shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All floors shall have at least the same fire rating 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 of wall and top side of the floor unless specified otherwise in the performance data.

RIGID FLOOR

Floor Installations :- Single Sided Seals

Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Floor Constructions (min 150mm thick)	Autoclaved aerated concrete to autoclaved aerated concrete.	50	25	Polyethylene 50mm diameter.	240	90
	Autoclaved aerated concrete to autoclaved aerated concrete.	40	20	Polyethylene 40mm diameter.	240	45
	Autoclaved aerated concrete to autoclaved aerated concrete.	30	15	Polyethylene 30mm diameter.	240	45
	Autoclaved aerated concrete to autoclaved aerated concrete.	20	10	Polyethylene 20mm diameter.	240	45
	Autoclaved aerated concrete to softwood.	50	25	Polyethylene 50mm diameter.	45	45
	Autoclaved aerated concrete to softwood.	40	20	Polyethylene 40mm diameter.	30	30
	Autoclaved aerated concrete to softwood.	30	15	Polyethylene 30mm diameter.	30	30
	Autoclaved aerated concrete to softwood.	20	10	Polyethylene 20mm diameter.	30	30
	Autoclaved aerated concrete to steel.	50	25	Polyethylene 50mm diameter.	240	90
	Autoclaved aerated concrete to steel.	40	20	Polyethylene 40mm diameter.	240	30
	Autoclaved aerated concrete to steel.	30	15	Polyethylene 30mm diameter.	240	30
	Autoclaved aerated concrete to steel.	20	10	Polyethylene 20mm diameter.	240	30



Linear Joint Seals - Floors

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RIGID FLOOR

Floor Installations :- Single Sided Seals - Seal installed flush with upper face of the floor

Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Floor Constructions (min 150mm thick)	Autoclaved aerated concrete to autoclaved aerated concrete.	50	25	Polyethylene 50mm diameter.	240	90
	Autoclaved aerated concrete to autoclaved aerated concrete.	20	10	Polyethylene 20mm diameter.	240	45
	Autoclaved aerated concrete to softwood.	50	50	Polyethylene 50mm diameter.	45	45
	Autoclaved aerated concrete to softwood.	20	10	Polyethylene 20mm diameter.	30	30
	Autoclaved aerated concrete to steel.	50	50	Polyethylene 50mm diameter.	240	90
	Autoclaved aerated concrete to steel.	20	10	Polyethylene 20mm diameter.	120	120

Floor Installations :- Double Sided Seals

Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Floor Constructions (min 150mm thick)	Aerated concrete to aerated concrete.	20	10	Polyethylene 30mm diameter.	300	120
	Aerated concrete to aerated concrete.	30	15	Polyethylene 40mm diameter.	300	60
	Aerated concrete to aerated concrete.	40	20	Polyethylene 50mm diameter.	300	60
	Aerated concrete to aerated concrete.	50	25	Polyethylene 60mm diameter.	300	210
	Softwood to aerated concrete.	25	12	Ethafoam 30mm diameter.	30	30
	Hardwood to aerated concrete.	50	25	Ethafoam 50mm diameter.	30	30
	Steel to aerated concrete.	50	25	Ethafoam 50mm diameter.	60	60



Movement

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Substrates

The walls shall be a minimum of **150mm 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/m³ and for aerated concrete blocks of 600kg/m³. 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 of wall and top face of floor unless specified otherwise in the performance data.

RIGID WALL

Wall Construction							
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing material	Integrity (mins)	Insulation (mins)	Movement %
Wall Constructions (min 150mm thick)	autoclaved aerated concrete.	60*	20 (both faces)	Polyethylene 20mm & 50mm diameter.	240	120	25 shear 8.3 Lateral
		60*	5 (either face)	75mm deep, compressed 15%, stonewool 60kg/m ³ .	240	60	25 Shear 12.5 Lateral
*Pre movement							

Substrates

The floors shall be a minimum of **150mm thick**. Masonry / Concrete floors shall have a minimum density for concrete or brick of 780kg/m³ and for aerated concrete blocks of 600kg/m³. All floors shall have at least the same fire rating 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 of wall and top side of the floor unless specified otherwise in the performance data.

RIGID FLOOR

Floor Constructions							
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing material	Integrity (mins)	Insulation (mins)	Movement %
Floor Constructions (min 150mm thick)	autoclaved aerated concrete.	60*	20 (both faces)	Polyethylene 20mm & 50mm diameter.	180	60	16 Lateral
		60*	5 (upper face)	100mm deep, compressed 15%, stonewool 60kg/m ³ .	240	240	25 Lateral
*Pre movement							



Penetration Seals

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Substrates

The walls shall be a minimum of **100mm - 150mm 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/m³ and for aerated concrete blocks of 600kg/m³. 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 of wall and top face of floor 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 WALL

Wall Installations: Double Sided Seals						
	Configuration	Cut Out (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Flexible or Rigid wall Constructions (min 150mm thick)	Cables ≤ to 21mm.	490mm long x 100mm high	25 (both faces)	70mm x 80kg/m ³ stone wool.	120	90
	Perforated Cable Tray 450mm x 50mm.	490mm long x 100mm high	25 (both faces)	70mm x 80kg/m ³ stone wool.	120	90
	Cables > 21 - 50mm.	200mm long x 100mm high	25 (both faces)	N/A	90	60

Sealing of Drywall Head & Flexible Wall To Rigid Wall - Double Sided Seals						
	Configuration	Annular Seal Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
Flexible or Rigid wall Constructions (min 150mm thick)	Copper/Steel pipe 15mm dia. & 0.8 - 7.4mm wall thickness.	10	25 (both faces)	N/A	120	20
	Copper/Steel pipe 40mm dia. & 0.8 - 14.2mm wall thickness.	10	25 (both faces)	N/A	120	15
	Copper/Steel pipe 15mm dia. & 0.8 - 14.2mm wall thickness.	10	25 (both faces)	N/A	120	0
	Copper/Steel pipe 15mm dia. & 0.8 - 14.2mm wall thickness with Thermal Defence Wrap 30mm long to the unexposed face.	10	25 (both faces)	N/A	120	90
	Copper/Steel pipe 15mm dia. & 0.8 - 14.2mm wall thickness with Thermal Defence Wrap 30mm long to the unexposed face.	10	25 (both faces)	N/A	120	20



Penetration Seals

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FLEXIBLE AND RIGID WALL

Stopseal 50mm Batt in Rigid & Flexible with a minimum wall thickness of 100mm.				
Aperture Size	Seal Composition	Services	Capping	Classification
180mm x 180mm Minimum 100mm wall thickness	20mm Depth of Pyrocoustic Sealant both sides of wall using 20mm of stone fibre backing minimum 45kg/m ³ both faces.	Electrical cables up to 21mm dia.	N/A	EI 120
		Electrical cables 33mm to 61mm dia.		E 120 , EI 60
		100mm diameter bundle telecommunication cable type "F".		EI 120
		Single cables up to 27mm dia.		E 120 , EI 60
		Steel or Copper Conduits up to 16mm.		E 120 , EI 15
		Plastic conduits up to 16mm.		EI 120

Stopseal 50mm Batt in Rigid & Flexible with a minimum wall thickness of 100mm.			
Aperture Size	Seal Composition	Services	Classification
180mm x 180mm Minimum 100mm wall thickness	20mm Depth of Pyrocoustic Sealant both sides of wall using 20mm of stone fibre backing minimum 45kg/m ³ both faces.	Blank Seal.	EI 120

Rigid & Flexible walls with a minimum thickness of 100mm.				
Aperture Size	Seal Composition	Services	Capping	Classification
180mm x 180mm Minimum 100mm wall thickness	20mm depth of Pyrocoustic Sealant applied flush with both faces of the wall and a 20mm deep infill of friction fitted rock wool insulation at a 45kg/m ³ density	Electrical cables up to 21mm dia	N/A	EI 120
		Electrical cables 33mm to 61mm dia		E 90, EI 60
		Single Electrical Cable up to 27mm dia		E 120, EI 60
		100mm diameter bundle telecommunication cable type "F"		EI 120
		Not Penetrated (Blank Penetration)		EI 120
		Steel or Copper Conduits up to 16mm		EI 120
		Plastic conduits up to 16mm		E 120, EI 15

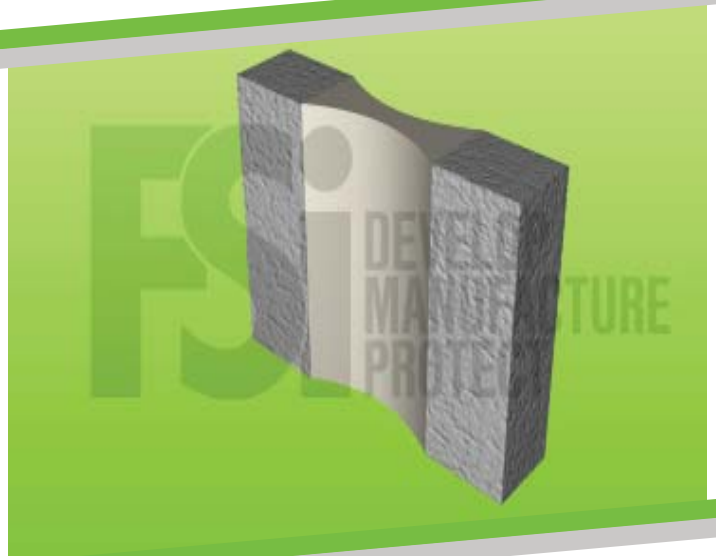


Penetration Seals

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FLEXIBLE AND RIGID WALL

Rigid & Flexible walls with a minimum thickness of 100mm				
Aperture Size	Seal Composition	Services	Capping	Classification
Annular Space of 10mm Minimum 100mm wall thickness	Annular space filled with Pyrocoustic Sealant flush to each face of the supporting construction to a depth of 25mm.	114mm diameter by 3mm wall thickness mild steel pipe.	C/U	E 120, EI 15
		42mm diameter by 2.8mm wall thickness mild steel pipe.		E 120, EI 45



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