



### CERTIFICATE OF APPROVAL No CF 517

This is to certify that, in accordance with TS00 General Requirements for Certification of Fire Protection Products The undermentioned products of

### **FSI LIMITED**

Westminster Industrial Estate, Tamworth Road, Measham, DE12 7DS Tel: 01530 515130 Fax: 01530 273564

Have been assessed against the requirements of the Technical Schedule(s) denoted below and are approved for use subject to the conditions appended hereto:

CERTIFIED PRODUCT BA120, Pyrocoustic & Pyropro LST Sealant in all colours

#### TECHNICAL SCHEDULE TS03 Fire Resisting Penetration Seal Systems

TS40 Linear Gap Sealing Systems

Signed and sealed for and on behalf of Exova (UK) Limited trading as Warrington Certification

Sir Ken Knight Chairman Impartiality Committee



Paul Duggan Certification Manager

Issued: 20<sup>th</sup> November 2006 Reissued: 2<sup>nd</sup> May 2017 Valid to: 1<sup>st</sup> May 2022

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This certificate is the property of Exova (UK) Limited trading as Warrington Certification Reg. Office: Exova (UK) Limited, Lochend Industrial Estate, Newbridge, Midlothian EH28 8PL United Kingdom. Co. Reg. No. SC070429





#### BA120, Pyrocoustic & Pyropro LST Sealant

- 1. This approval relates to the use of BA120, Pyrocoustic & Pyropro LST Sealant for the fire protection of movement joints within walls and floors and for the sealing of gaps around various pipes and cables penetrating flexible and rigid walls. The detailed scope is given in the Approval Matrix included in this Certificate. This shows the thickness and acceptable services for BA120, Pyrocoustic & Pyropro LST Sealant required to provide fire resistance periods in accordance with BS 476: Part 20: 1987, EN1366-3: 2009 and EN1366-4: 2006 of up to 240 minutes for wall/floor constructions. The scope of certification complies with the guidelines stated in the ASFP Red Book: 3<sup>rd</sup> Edition for 3<sup>rd</sup> party certification schemes.
- 2. This certification is designed to demonstrate compliance of the product or system specifically with Approved Document B (England and Wales), Section 2 of the Technical Standards (Scotland), Technical Booklet E (N. Ireland). If compliance is required to other regulatory or guidance documents there may be additional considerations or conflict to be taken into account.'
- 3. The product is approved on the basis of:
  - i) Initial type testing
  - ii) Audit testing at the frequency specified in TS03, TS40
  - iii) A design appraisal against TS03, TS40
  - iv) Inspection and surveillance of factory production control
- 4. The concrete walls and drywall shall be at least 100mm thick (see individual tables) and the floors at least 250mm thick (see individual tables) and have at least the same fire rating as that required for the penetration seal.
- 5. Masonry and concrete gap faces will be within the density range of 450 to 2300kg/m<sup>3</sup>, (see individual tables) and gap faces will be free from loose or flaking material.
- 6. Backing or support materials may be polyethylene, Ethafoam or mineral fibre insulation depending upon the system.
- 7. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

Further information regarding the details contained in this data sheet may be obtained from FSi Limited (Tel: 01530 515130).

Further information regarding the CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

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#### BA120, Pyrocoustic & Pyropro LST Sealant BS 476 Approval Matrix

Produ	ct Name			oustic & Pyropro LS	ST Sealant	-
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
	Autoclaved aerated	20	10	Polyethylene	300	300
	concrete/autoclaved			30 mm diameter		
	aerated concrete					
	Autoclaved aerated	30	15	Polyethylene	300	210
	concrete/autoclaved			40 mm diameter		
	aerated concrete					
	Autoclaved aerated	40	20	Polyethylene	300	210
	concrete/autoclaved			50 mm diameter		
s 🕉	aerated concrete					
ici lo	Autoclaved aerated	50	25	Polyethylene	300	210
, tr	concrete/autoclaved			60 mm diameter		
nn	aerated concrete					
20 u	Brick/Autoclaved	15	10	Polyethylene	240	0
й <u>О</u>	aerated concrete			20 mm diameter		
Wall Constructions (min 250mm thick)	Brick/autoclaved	25	10	Polyethylene	240	30
	aerated concrete			30 mm diameter		
	Steel/	30	15	Polyethylene	300	90
	aerated blockwork			40 mm diameter		
	Steel/	50	25	Ethafoam	60	30
	aerated blockwork			50 mm diameter		
	Hardwood/ aerated	50	25	Ethafoam	60	60
	blockwork			50 mm diameter		
	Softwood/ aerated	25	12	Ethafoam	30	30
	blockwork			30 mm diameter		
	Aerated concrete/	20	10	Polyethylene	300	120
	aerated concrete			30 mm diameter		
	Aerated concrete/	30	15	Polyethylene	300	60
si 🦳	aerated concrete			40 mm diameter		
jā ģ	Aerated concrete/	40	20	Polyethylene	300	60
국도	aerated concrete			50 mm diameter		
atr J	Aerated concrete/	50	25	Polyethylene	300	210
Floor Constructions (min250mm thick)	aerated concrete			60 mm diameter		
5 25	Softwood/	25	12	Ethafoam	30	30
nir	aerated concrete			30 mm diameter		
ц с	Hardwood/	50	25	Ethafoam	30	30
	aerated concrete			50 mm diameter		
	Steel/	50	25	Ethafoam	60	60
	aerated concrete	-	-	50 mm diameter	-	
Applic	ation Technique			s of the building elem		
		grease and m		imed. On good clean,	virgin concrete	& masonry, n

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#### BA120, Pyrocoustic & Pyropro LST Sealant-BS 476 Approval Matrix

et ion ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete ed aerated (autoclaved concrete	Max. Joint Width (mm) 50 40 30 20 50	Minimum Seal Depth (mm) 25 20 15 10 25	Backing MaterialPolyethylene 50 mm diameterPolyethylene 40 mm diameterPolyethylene 30 mm diameterPolyethylene 40 mm diameterPolyethylene 40 mm diameterPolyethylene 40 mm diameter	Integrity (mins)       240       240       240       240       240       240       40	Insulation (mins)       90       45       45       45       45       45       45
autoclaved concrete ed aerated autoclaved concrete ed aerated autoclaved concrete ed aerated autoclaved concrete ed aerated autoclaved concrete ed aerated autoclaved concrete ed aerated	40 30 20	20 15 10	50 mm diameterPolyethylene40 mm diameterPolyethylene30 mm diameterPolyethylene40 mm diameterPolyethylene40 mm diameter	240 240 240	45
ed aerated 'autoclaved I concrete ed aerated 'autoclaved I concrete ed aerated 'autoclaved I concrete ed aerated ed aerated ed aerated be/softwood	30	15 10	40 mm diameter Polyethylene 30 mm diameter Polyethylene 40 mm diameter Polyethylene	240 240	45
autoclaved concrete ed aerated autoclaved concrete ed aerated e/softwood	20	10	30 mm diameter Polyethylene 40 mm diameter Polyethylene	240	45
/autoclaved l concrete ed aerated e/softwood			40 mm diameter Polyethylene		
e/softwood	50	25		45	45
ed aerated			50 mm diameter		
e/softwood	40	20	Polyethylene 40 mm diameter	30	30
ed aerated e/softwood	30	15	Polyethylene 30 mm diameter	30	30
	20	10	Polyethylene 20 mm diameter	30	30
	50	25	Polyethylene 50 mm diameter	240	90
	40	20	Polyethylene 40 mm diameter	240	30
oclaved aerated 30 concrete/steel		15	Polyethylene 30 mm diameter	240	30
	20	10	Polyethylene 20 mm diameter	240	30
		e/softwood red aerated 50 ete/steel red aerated 40 ete/steel red aerated 30 ete/steel red aerated 20 ete/steel red aerated 20 ete/steel red aerated 50 ete/steel red aerated 20 ete/steel	e/softwood red aerated ete/steel red aerated ete/steel	ed aerated e/softwood2010Polyethylene 20 mm diametered aerated ete/steel5025Polyethylene 50 mm diameterred aerated ete/steel4020Polyethylene 40 mm diameterred aerated ete/steel3015Polyethylene 30 mm diameterred aerated ete/steel2010Polyethylene 20 mm diameterred aerated ete/steel2010Polyethylene 30 mm diameterred aerated ete/steel2010Polyethylene 20 mm diameterred aerated ete/steel2010Polyethylene 20 mm diameterred aerated ete/steel2010Polyethylene 20 mm diameterfor good adhesion the surfaces of the building elem grease and may need to be primed. On good clean,	red aerated e/softwood2010Polyethylene 20 mm diameter3020 softwood2025Polyethylene 50 mm diameter240red aerated ete/steel4020Polyethylene 40 mm diameter240red aerated ete/steel3015Polyethylene 240240red aerated ete/steel3015Polyethylene 240240red aerated ete/steel2010Polyethylene 240240

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#### BA120, Pyrocoustic & Pyropro LST Sealant-EN1366-4 Approval Matrix

Product Name BA120 , Pyrocoustic & Pyropro LST Sealant							
Configuration Wide (mn			Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 50 mm diameter	120	60	
onstructions 00mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 20 mm diameter	120	45	
onstru 00mm	Autoclaved aerated concrete/softwood	50	50	Polyethylene 50 mm diameter	45	45	
Wall Co (min 10	Autoclaved aerated concrete/softwood	20	10	Polyethylene 20 mm diameter	30	20	
35	Autoclaved aerated concrete/steel	50	50	Polyethylene 50 mm diameter	45	30	
	Autoclaved aerated concrete/steel	20	10	Polyethylene 20 mm diameter	120	20	
Application Technique For good adh			nay need to be pr	s of the building elem imed. On good clean,			

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#### BA120, Pyrocoustic & Pyropro LST Sealant-EN1366-4 Approval Matrix

ete/autoclaved	Max. Joint Width (mm) 50 40 30 20	Minimum Seal Depth (mm) 25 20 20 15	Backing MaterialPolyethylene 50 mm diameterPolyethylene 40 mm diameterPolyethylene 30 mm diameter	Integrity (mins) 120 120 120	Insulation (mins) 60 30 30
ete/autoclaved ated concrete claved aerated rete/autoclaved ated concrete claved aerated rete/autoclaved ated concrete claved aerated rete/autoclaved	40	20	50 mm diameter Polyethylene 40 mm diameter Polyethylene	120	30
ete/autoclaved ated concrete claved aerated ete/autoclaved ated concrete claved aerated rete/autoclaved	30		40 mm diameter Polyethylene		
rete/autoclaved ated concrete claved aerated rete/autoclaved		15		120	30
ete/autoclaved	20				
Autoclaved aerated concrete/autoclaved aerated concrete		10	Polyethylene 40 mm diameter	120	30
claved aerated crete/softwood	50	25	Polyethylene 50 mm diameter	45	30
	40	20	Polyethylene 40 mm diameter	30	15
	30	15	Polyethylene 30 mm diameter	30	15
	20	10	Polyethylene	30	15
	50	25	Polyethylene 50 mm diameter	45	30
	40	20	Polyethylene 40 mm diameter	45	30
	30	15	Polyethylene 30 mm diameter	45	30
	20	10	Polyethylene 20 mm diameter	120	15
	crete/softwood claved aerated crete/softwood claved aerated crete/softwood claved aerated crete/softwood claved aerated oncrete/steel claved aerated oncrete/steel claved aerated oncrete/steel claved aerated oncrete/steel claved aerated oncrete/steel claved aerated oncrete/steel claved aerated oncrete/steel	claved aerated 40   crete/softwood 30   claved aerated 30   crete/softwood 20   claved aerated 20   claved aerated 50   oncrete/steel 40   claved aerated 40   oncrete/steel 30   claved aerated 30   oncrete/steel 30   claved aerated 30   oncrete/steel 20   claved aerated 30   oncrete/steel 20   claved aerated 30   oncrete/steel 50   claved aerated 30   oncrete/steel 50   claved aerated 30   oncrete/steel 50   claved aerated 50   oncrete/steel 50   claved aerated 50   oncrete/steel 50   claved aerated 50   oncrete/steel 50   for good adh 50	claved aerated crete/softwood4020claved aerated crete/softwood3015claved aerated crete/softwood2010claved aerated crete/softwood2010claved aerated claved aerated oncrete/steel5025claved aerated oncrete/steel4020claved aerated oncrete/steel3015claved aerated oncrete/steel3015claved aerated oncrete/steel2010claved aerated oncrete/steel3015claved aerated oncrete/steel2010claved aerated oncrete/steel2010claved aerated oncrete/steelFor good adhesion the surface	claved aerated crete/softwood4020Polyethylene 40 mm diameterclaved aerated crete/softwood3015Polyethylene 30 mm diameterclaved aerated crete/softwood2010Polyethylene 30 mm diameterclaved aerated crete/softwood2010Polyethylene 20 mm diameterclaved aerated crete/softwood5025Polyethylene 50 mm diameterclaved aerated oncrete/steel4020Polyethylene 30 mm diameterclaved aerated oncrete/steel3015Polyethylene 30 mm diameterclaved aerated oncrete/steel3015Polyethylene 30 mm diameterclaved aerated oncrete/steel2010Polyethylene 30 mm diameterclaved aerated oncrete/steel2010Polyethylene 30 mm diameterclaved aerated oncrete/steel2010Polyethylene 30 mm diameterclaved aerated oncrete/steel2010Polyethylene 30 mm diameterfechniqueFor good adhesion the surfaces of the building elem grease and may need to be primed. On good clean,	claved aerated crete/softwood4020Polyethylene 40 mm diameter30claved aerated crete/softwood3015Polyethylene 30 mm diameter30claved aerated claved aerated claved aerated2010Polyethylene 20 mm diameter30claved aerated crete/softwood2010Polyethylene 20 mm diameter30claved aerated claved aerated oncrete/steel5025Polyethylene 50 mm diameter45claved aerated oncrete/steel4020Polyethylene 4545claved aerated oncrete/steel3015Polyethylene 4545claved aerated oncrete/steel3015Polyethylene 4545claved aerated oncrete/steel2010Polyethylene 4545claved aerated oncrete/steel2010Polyethylene 20 mm diameter120claved aerated oncrete/steel2010Polyethylene 20 mm diameter120claved aerated oncrete/steel2010Polyethylene 20 mm diameter120fechniqueFor good adhesion the surfaces of the building element shall be free grease and may need to be primed. On good clean, virgin concrete

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#### BA120, Pyrocoustic & Pyropro LST Sealant-EN 1366-4 Approval Matrix

	Floor Installations: Single Sided Seals – Seal installed flush with upper face of the floor								
Produ	ct Name			oustic & Pyropro L	ST Sealant	<u>.</u>			
	Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)			
50mm	Autoclaved aerated concrete/autoclaved aerated concrete	50	25	Polyethylene 50 mm diameter	240	90			
(min 150mm	Autoclaved aerated concrete/autoclaved aerated concrete	20	10	Polyethylene 20 mm diameter	240	45			
Constructions thick)	Autoclaved aerated concrete/softwood	50	50	Polyethylene 50 mm diameter	45	45			
nstruc 1	Autoclaved aerated concrete/softwood	20	10	Polyethylene 20 mm diameter	30	30			
or Cor	Autoclaved aerated concrete/steel	50	50	Polyethylene 50 mm diameter	240	90			
Floor	Autoclaved aerated concrete/steel	20	10	Polyethylene 20 mm diameter	120	120			
Application Technique     For good adhesion the surfaces of the building element shall be free of a grease and may need to be primed. On good clean, virgin concrete & m priming required.									

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#### BA120, Pyrocoustic & Pyropro LST Sealant-EN1366-4 Approval Matrix

Wall Ir	stallations: Double Si	ded Seals					
Produ	ct Name		BA120, Pyrocoustic & Pyropro LST Sealant				
	Configuration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
Wall Constructions (min 120mm thick)	Drywall/ autoclaved aerated concrete	20	12.5 (both faces)	Polyethylene 20mm diameter	120	120	
Wall Constructions (min 100mm thick)	Autoclaved aerated concrete/autoclaved aerated concrete	20	12.5 (both faces)	Polyethylene 20 mm diameter	120	120	
Application Technique     For good adhesion the surfaces of the building element shall be free of a grease and may need to be primed. On good clean, virgin concrete & ma priming required.							

Sealin	g of Drywall Head & F	lexible Wall To	Rigid Wall – Do	uble Sided Seals			
Produ	ct Name		BA120, Pyrocoustic & Pyropro LST Sealant				
Configuration		Max. Joint Width (mm)	Minimum Seal Depth (mm)	Seal Orientation	Integrity (mins)	Insulation (mins)	
Constructions 120mm thick)	Gypsum plasterboard + steel head track/Rigid floor	20	25 (both faces)	Horizontal	120	120	
Wall Cons (min 120n	Gypsum plasterboard + steel vertical edged track/Rigid floor	20	25 (both faces)	Vertical	120	120	
			esion the surfaces of the building element shall be free of any dust or hay need to be primed. On good clean surfaces no priming required.				

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#### BA120, Pyrocoustic & Pyropro LST Sealant-EN1366-4 +A1 Approval Matrix

Produ	ct Name		BA120 , Pyro	coustic & Pyropro	LST Sealant		
Co	nfiguration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	Movement %
Constructions 150mm thick)	autoclaved	60 *	20 (both faces)	Polyethylene 20mm & 50mm diameter	240	120	25 Shear 8.3 Lateral
Wall Cons (min 150	aerated concrete	60*	5 (either face)	75mm deep, compressed 15%, stonewool 60kg/m3	240	60	25 Shear 12.5 Lateral
*Pre m	ovement	1	1	1		1	1
Application     For good adhesion the surfaces of the building element shall be free of any dust or grease and need to be primed. On good clean, virgin concrete & masonry, no priming required.							ease and may

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#### BA120, Pyrocoustic & Pyropro LST Sealant-EN1366-4 +A1 Approval Matrix

Produ	ct Name		BA120 , Pyro	coustic & Pyropro	LST Sealant		
Co	nfiguration	Max. Joint Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	Movement %
- Constructions 150mm thick)	autoclaved	60 *	20 (both faces)	Polyethylene 20mm & 50mm diameter	180	60	16.6 Lateral
Floor Con (min 150	aerated concrete	60*	5 (upper face)	100mm deep, compressed 15%, stonewool 60kg/m3	240	240	25 Lateral
*Pre m	lovement						
Application     For good adhesion the surfaces of the building element shall       Technique     For good adhesion the surfaces of the building element shall							ease and may

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#### BA120, Pyrocoustic & Pyropro LST Sealant-**EN1366-3 Approval Matrix**

	nstallations: Double Sided Seals		1			
Produ	ct Name	A		coustic & Pyro	pro LST Sea	alant
	Pipe Size and Type	Annular Seal Width (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)
n thick)	Copper/Steel pipe 15mm dia. & 0.8 – 7.4mm wall thickness	10	25 (both faces)	N/A	120	20
150mm	Copper/Steel pipe 40mm dia. & 0.8 – 14.2mm wall thickness	10	25 (both faces)	N/A	120	15
ictions (mir	Copper/Steel pipe 40 – 159mm dia. & 1.8 – 14.2mm wall thickness	10	25 (both faces)	N/A	120	0
-lexible or Rigid Wall Constructions (min 150mm thick)	Copper/Steel pipe 40mm dia. & 0.8 – 14.2mm wall thickness with Thermal Defense Wrap 30mm long to the unexposed face.	10	25 (both faces)	N/A	120	90
Flexible or Riç	Copper/Steel pipe 40mm dia. & 0.8 – 14.2mm wall thickness with Thermal Defense Wrap 30mm long to the unexposed face.	10	25 (both faces)	N/A	120	20
Applic	ation Technique	service shall annular spac with the seal faces. On goo	be cut to suit then be posit e shall then be ant and the se od clean surface	tioned centrall filled to the m alant smoothe es no priming i	y within th hinimum rec d to be flus s required	e hole. The quired depth sh with both
Rigid	Walls		t have a minim ated concrete			
Flexib	le Walls	The walls must have a minimum thickness of 120mm and comprise timber or steel studs lined on both faces with a minimum of 2 layers of 12.5mm thick "Type F" Gypsum board according to EN 520. In timber stud walls no part of the penetration shall be closer than 100mm to a stud, the cavity must be closed between the penetration seal and the stud and a minimum of 100mm of insulation of Class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration and the stud.				

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#### BA120, Pyrocoustic & Pyropro LST Sealant-**EN1366-3 Approval Matrix**

	stallations: Double Sided	Seals					
Produc	ct Name			coustic & Pyrop	ro LST Seala	ant	
Cab	le and Cable Tray Size	Cut Out (mm)	Minimum Seal Depth (mm)	Backing Material	Integrity (mins)	Insulation (mins)	
(min 150mm thick)	Cables ≤ to 21mm	490mm long x 100mm high	25 (both faces)	70mm x 80kg/m <sup>3</sup> stone wool	120	90	
Flexible or Rigid Wall Constructions (min 150mm thick)	Perforated Cable Tray 450mm x 50mm	490mm long x 100mm high	25 (both faces)	70mm x 80kg/m <sup>3</sup> stone wool	120	90	
Flexible or Rigid	Cables > 21-50mm	200mm long x 100mm high	25 (both faces)	N/A	90	60	
Applic	ation Technique	be positioned ce the minimum req	The hole to be cut to suit the required service and the service shall then be positioned centrally within the hole. The space shall then be filled to the minimum required depth with the sealant and the sealant smoothed to be flush with both faces. On good clean surfaces no priming is required.				
Rigid \	Walls	The wall must have a minimum thickness of 150mm and comprise concrete, aerated concrete or masonry with a minimum deity of 450kg/m <sup>3</sup>					
Flexibl	e Walls	timber or steel st 12.5mm thick "Ty stud walls no par stud, the cavity r stud and a minin according to EN	The walls must have a minimum thickness of 120mm and comprise imber or steel studs lined on both faces with a minimum of 2 layers of 2.5mm thick "Type F" Gypsum board according to EN 520. In timber stud walls no part of the penetration shall be closer than 100mm to a stud, the cavity must be closed between the penetration seal and the stud and a minimum of 100mm of insulation of Class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration and the stud.				

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### BA120, Pyrocoustic & Pyropro LST Sealant- Approval Matrix

Air Permeability:	Pressure (Pa)	(Pa) pressure pressure (m <sup>3</sup> /b/m <sup>2</sup> ) (m <sup>3</sup> /b/m <sup>2</sup> )		Weether Conchility	Not evaluated by this	
EN1026	50	0	0	Weather Capability:	approval	
	100	0	0			
Acoustic Rating: BS EN ISO 10140-3:1995	3S EN ISO 10140-3:1995   R <sub>w</sub> (C;C <sub>tr</sub> ) :38(-2;-7) dB     Smoke Toxicity   35 6853: 1999 Annex     3.1 Incorporating   R value of 0.19		Movement Capability:	Movement parameters provided in the scope above		
Smoke Toxicity BS 6853: 1999 Annex B.1 Incorporating Amendment No.1			Smoke Density BS 6853 D.3: 1999 Incorporating Amendment No.1	Ao (max) value 0.004		

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