Fireshield Acoustic Intumescent FR Acrylic

VJ Technology

Technical Data Sheet

Description

Fireshield Acoustic Intumescent FR Acrylic is a halogen free, polymer emulsion-based sealant that swells when subjected to temperatures in excess of 125ºC and forms a char coat that restrics the passage of smoke and fire. It is easily applied and dries to a flexible and smooth surfaced material which provides movement capability in fire rated linear joint and penetration seals. It is readily over paintable. It has excellent adhesion to a wide range of substrates and will not harden or crack with age.

Colours

White or grey

Packaging Options

310ml cartridge
900ml jumbo cartridge
600ml foil sausage

Limitations

Fireshield Acoustic Intumescent FR Acrylic is not suitable in joints where movement exceeds ± 15% of joint width, or in external joints.

Specification Compliance

- BS EN 1366-3: 2004 & BS EN 1366-4: 2006 Tested at Bodycote Warrington FIre, report No. 173658A achieving 4 hour integrity and insulation rating for a range of linear and penetration seals.
- BS EN ISO 10140-2: 2010 Measurement of Airborne Sound Insulation of Building elements. University of Salford reports 2612 - 76, 77, 79 - 81. The sealant maintained the integrity of a plasterboard partition wall with a Sound Reduction Index of 55 dB.
- Classification of fire resistance data from test report FIRES-CR-199-16AUPE in accordance with EN 13501-2:2007+A1:2009 when tested as penetration seals around metal pipes and cables according to EN 1366-3 in a flexible wall.
- BS EN 1634-1 2014 + A1 2018 - FD30 & FD60
- VOC test report classification - M1 and Indoor Air Comfort GOLD®

Usage/Purpose

Fireshield Acoustic Intumescent FR Acrylic forms a fire and smoke seal in joints up to 35mm wide without slumping. It is ideal for sealing:

- joints in and around internal partitions where flexibility may be required
- linear gap seals, vertical or horizontal at head or foot of wall
- penetration seals around metal pipes

Important Notes

- If the sealant is overpainted, building regulations may require a fire-resistant coating

Application Instructions

To achieve a high quality joint, ensure surfaces are dry and free of all dirt, oil and loose material using a wire brush if necessary. Non-porous surfaces should be degreased using a suitable degreasing agent. Highly porous surfaces should be sealed with a suitable primer. For a cleaner finish, apply masking tape to each side of joint and gun sealant firmly into joint, smoothing off with a wetted spatula. Masking tape should be removed within 10 minutes of application.

Technical Details

Properties	Result
movement accomodation	± 12.5 % conforms to ISO 11600 F 12.5P
skinning time	15 mins to 1 hour depending on conditions
cure time	5 to 15 days for 15mm x 20mm bead
hardness shore A	35 - 45
tensile strength (100%)	0.2 MPa
paintability	with most paints when cured
application temperature	+5°C to +40°C
cleaning	uncured sealant with water
shelf life	300ml and 600ml - 24 months / 900ml - 12 months when stored in unopened containers as recommended
specific gravity	1.60 - 1.68

Storage

Store in cool dry conditions. PROTECT FROM FROST.

Coverage

A 310ml tube is sufficient to produce approx. 1m using a 20mm x 15mm bead

Health & Safety

Fireshield Acoustic Intumescent FR Acrylic presents no known health hazards when used as recommended. Consult MSDS for further information. As with all chemical product, care should be taken during use and storage to avoid contact with foodstuffs, skin, eyes and mouth. If accidentally ingested, seek medical attention do not induce vomiting and give copious amounts of water to drink. **KEEP AWAY FROM CHILDREN AND ANIMALS.**

Performance Data

Supporting evidence for the tables A1-A4 is given in BRE report P113222-1000 Issue 1

Table A1 - vertical orientation - single seals - block wall

Gap size (mm)	Substrate	Seal depth (mm)	Seal location	Backing strip	Integrity (mins)	Insulation (mins)
≤ 10	concrete/masonry/non-combustible board	6	either face	**	210	unclassified
≤ 12	concrete/masonry/non-combustible board	20	fire face	55mm mineral wool	240	150
11-15	concrete/masonry/non-combustible board	10	either face	**	240	30
16-20	concrete/masonry/non-combustible board	15	either face	**	240	30
21-35	concrete/masonry/non-combustible board	20	either face	**	240	-
12-35	concrete/masonry/non-combustible board	25	either face	**	240	150
12-35	concrete/masonry/non-combustible board	35	fire face	30mm mineral wool	120	120
≤ 10	hardwood *	16	either face	any (to 12mm gap)	60	-
≤ 25	hardwood *	25	either face	**	60	30
12-25	hardwood *	35	either face	**	60	60
≤ 25	softwood ***	35	either face	**	60	60

*joints between two hardwood sections fixed to the supporting construction
** combustible material (ie. polyethylene foam)
*** joints between two softwood sections fixed to the supporting construction

Table A2 - horizontal orientation - single seals

Gap size (mm)	Substrate	Seal depth (mm)	Seal location	Backing strip	Integrity (mins)	Insulation (mins)
≤ 10	concrete/masonry/non-combustible board	6	either face	**	240	unclassified
≤ 15	concrete/masonry/non-combustible board	10	either face	**	240	30
16-20	concrete/masonry/non-combustible board	15	either face	**	240	30
12-35	concrete/masonry/non-combustible board	25	either face	**	240	60
12-35	concrete/masonry/non-combustible board	35	fire face	30mm mineral wool	120	90
≤ 10	hardwood *	15	either face	any (to 12mm gap)	60	unclassified
≤ 25	hardwood *	25	either face	**	60	60
≤ 10	softwood ***	35	either face	any (to 12mm gap)	90	-
≤ 25	softwood ***	35	either face	**	60	60

*joints between two hardwood sections fixed to the supporting construction
** combustible material (ie. polyethylene foam)
*** joints between two softwood sections fixed to the supporting construction

Table A3 - vertical orientation - double seals - block wall

Gap size (mm)	Substrate	Seal depth (mm)	Seal location	Backing strip	Integrity (mins)	Insulation (mins)
≤ 12	concrete/masonry/non-combustible board	10	both faces	25mm mineral wool	240	240
≤ 15	concrete/masonry/non-combustible board	5-7.5	both faces	**	240	30
16-20	concrete/masonry/non-combustible board	8-10	both faces	**	240	30
12-20	concrete/masonry/non-combustible board	10	both faces	**	240	60
12-35	concrete/masonry/non-combustible board	12.5-17.5	both faces	**	240	150
12-35	concrete/masonry/non-combustible board	30	both faces	30mm mineral wool	240	240
≤ 10	hardwood *	8	both faces	any (to 12mm gap)	60	-
≤ 25	hardwood *	12.5	both faces	**	60	30
12-25	hardwood *	17.5	both faces	**	60	60
≤ 25	softwood ***	17.5	both faces	**	60	60

*joints between two hardwood sections fixed to the supporting construction
** combustible material (ie. polyethylene foam)
*** joints between two softwood sections fixed to the supporting construction

Table A4 - horizontal orientation - single seals - block wall

Gap size (mm)	Substrate	Seal depth (mm)	Seal location	Backing strip	Integrity (mins)	Insulation (mins)
≤ 12	concrete/masonry/non-combustible board	10	both faces	25mm mineral wool	240	240
≤ 15	concrete/masonry/non-combustible board	5.5-7.5	both faces	**	240	30
16-20	concrete/masonry/non-combustible board	8-10	both faces	**	240	30
12-35	concrete/masonry/non-combustible board	12.5-17.5	both faces	**	240	60
12-35	concrete/masonry/non-combustible board	30	both faces	30mm mineral wool	240	240
≤ 10	hardwood *	7.5	both faces	any (to 12mm gap)	60	unclassified
≤ 25	hardwood *	12.5	both faces	**	60	60
≤ 25	softwood ***	17.5	both faces	**	60	60

*joints between two hardwood sections fixed to the supporting construction
** combustible material (ie. polyethylene foam)
*** joints between two softwood sections fixed to the supporting construction

Supporting evidence for table A5 is given in BRE report P113222-1001B Issue 1

Table A5 - frame of timber door set - steel stud partition

Gap size (mm)	Door frame material	Seal depth (mm)	Seal location	Backing strip	Fire resistance period 30 mins	Fire resistance period 60 mins
≤ 20	softwood min. density 510kg/m^3	10	rear	50mm mineral wool 10kg/m^3	70mm deep	NA
≤ 20	hardwood min. density 600kg/m^3	10	rear	50mm mineral wool 10kg/m^3	70mm deep	95mm deep
≤ 20	MDF min. density 720kg/m^3	10	rear	50mm mineral wool 10kg/m^3	70mm deep	100mm deep

Supporting construction can be a rigid masonry supporting construction, minimum thickness 100mm or a flexible partition system, minimum thickness 100mm, comprising steel studs, minimum depth 50mm, lined with minimum 2 layers of 12.5mm thick type 5 plasterboard.

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