

# AIM Intumescent Acrylic Sealant



For sealing minor gaps and imperfections local to AIM Cavity and Fire Barrier Products and for use as a general purpose fire rated sealant in voids up to 35mm between a range of substrates.

Technical Guide

Issue 1 - 06 2024

## PRODUCT

An acrylic intumescent sealant for sealing minor gaps and imperfections to cavity and fire barrier products.

AIM Intumescent sealant is a halogen free, polymer emulsion-based sealant that swells when subjected to temperatures in excess of 125°C and forms a char coat that restricts the passage of smoke and fire.

It is easily applied and dries to a flexible and smooth surfaced material which is readily over paintable.

It has excellent adhesion to a wide range of substrates and will not harden or crack with age.

## APPLICATIONS

When installing fire barrier products there are often imperfections in the substrate or minor voids between the substrate and the barrier which need to be fully filled with a fire rated mastic sealant.



## FEATURES

- An acrylic, polymer emulsion-based sealant
- Supplied in 310ml cartridges
- Tested with AIM's Cavity and Fire Barrier range

## BENEFITS

- Seals voids of up to 10mm between the barrier and the substrate
- Forms a char coat that restricts the passage of smoke and fire
- Readily over paintable
- Will not harden or crack with age



Tests have been conducted with the following products, to the following standards:

Product	Test Standard	Integrity Performance
AIM Open State Cavity Barriers	BS EN 1363-1 / TGD19	Up to 120 minutes*
AIM Wall Cavity Barrier	BS EN 1366-4:2021	Up to 120 minutes*
AIM Cavity Closers	BS EN 1366-4:2021	Up to 120 minutes*
AIM FB Cavity Closers	BS EN 1366-4:2021	Up to 120 minutes*
AIM Fire Stop Blocks	BS EN 1366-4:2021	Up to 120 minutes*
General Purpose Sealant	BS 476-20:1987	Up to 240 minutes*

\* Subject to the performance of the cavity / fire barrier and supporting structure.



## PHYSICAL INFORMATION

- Cure rate: 5 to 15 days dependent upon bead size, substrate, and drying conditions.
- Coverage:

$$\frac{\text{Joint Depth (mm)} \times \text{Joint Height (mm)}}{\text{X Joint Length (m)}}$$

Divided by 310

For example – 1 tube is sufficient to produce approx. 1m using a 20mm x 15mm bead.

- Movement Accommodation:  $\pm 7.5\%$  Conforms to ISO 11600 7.5P
- Skinning Time: 15 mins to 1 hour depending on conditions.
- Hardness Shore A: 25 - 30
- Temperature Resistance:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  (intermittent)
- Paintability: most non-solvented paints.
- Application Temperature:  $+5^{\circ}\text{C}$  to  $40^{\circ}\text{C}$
- Cleaning: uncured sealant with water.

## AS STANDARD

The product is supplied in plastic 310ml cartridges.

## PERFORMANCE

Tested to provide 120 minutes integrity adjacent to AIM Cavity & Fire Barriers.

Sealing the voids and gaps local to the cavity or fire barrier line will help reduce the flanking sound transmission.

The AIM Intumescent Sealant has been tested in vertical and horizontal orientations with a variety of substrates and to a range of seal depths. Tests have been performed to the requirements of BS 476-20:1987 and BS 476-22:1987 on steel stud and gypsum board partitions.

The tables below provide a selection of the test results achieved. Full performance details are available within the BRE Global Assessment Report P125064-1003 Issue 1, which is available on request.

### Single Seal (Any position in the wall / floor)

Test Reference	Vertical or Horizontal	Substrate	Seal width	Seal depth	Backer (if any)	Integrity
54260/B (V3)	Horizontal	A	> 10mm	6mm	Any	240
54260/B (V3)	Horizontal	A	11 > 15	10mm	Any	240
54845/B (v4)	Horizontal	A	16 > 20	15mm	Any	240
54845/B (v5)	Horizontal	A	21 > 35	20mm	Any	240
54260/B (V3)	Vertical	A	> 10mm	7mm	Any	240
54845/B (V4)	Vertical	A	11 > 15	10mm	Any	240
54845/B (V5)	Vertical	A	16 > 20	15mm	Any	240
54845/B (V6)	Vertical	A	21 > 35	20mm	Any	240

A = Normal & lightweight concrete, Masonry, Steel, Non-Combustible boards

Test Reference	Vertical or Horizontal	Substrate	Seal width	Seal depth	Backer (if any)	Integrity
59021 (H3)	Horizontal	Hardwood	> 10mm	35	Any	90
59021 (H1)	Horizontal	Hardwood	11 > 25	25	Any	60
59021 (V2)	Vertical	Hardwood	> 10mm	37	Any	90
59021 (V4)	Vertical	Hardwood	11 > 25	25	Any	60

Test Reference	Vertical or Horizontal	Substrate	Seal width	Seal depth	Backer (if any)	Integrity
59021 (H3)	Horizontal	Softwood	> 10mm	35	Any	90
59021 (H4)	Horizontal	Softwood	11 > 25	35	Any	60
59021 (V2)	Vertical	Softwood	> 10mm	35	Any	60
59021 (V1)	Vertical	Softwood	11 > 25	35	Any	60

## Double Seal (Any position in the wall / floor)

Test Reference	Vertical or Horizontal	Substrate	Seal width	Seal depth	Backer (if any)	Integrity
54260/B (V3)	Horizontal	A	> 10mm	5mm	Any	240
54845/B (H2)	Horizontal	A	11 > 15	6mm	Any	240
54845/B (V5)	Horizontal	A	16 > 20	9mm	Any	240
54845/B (V6)	Horizontal	A	21 > 35	11mm	Any	240
54260/B (V3)	Vertical	A	> 10mm	5mm	Any	240
54845/B (V4)	Vertical	A	11 > 15	5mm	Any	240
54845/B (V5)	Vertical	A	16 > 20	8mm	Any	240
54845/B (V6)	Vertical	A	21 > 35	11mm	Any	240

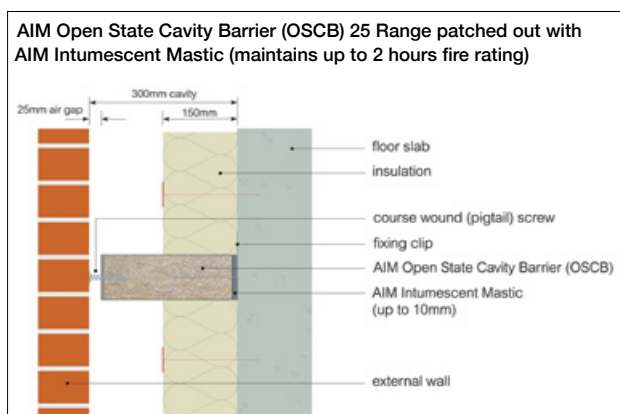
A = Normal & lightweight concrete, Masonry, Steel, Non-Combustible boards

Test Reference	Vertical or Horizontal	Substrate	Seal width	Seal depth	Backer (if any)	Integrity
59021 (H3)	Horizontal	Hardwood	> 10mm	18mm	Any	90
59021 (H1)	Horizontal	Hardwood	11 > 25	13mm	Any	60
59021 (V2)	Vertical	Hardwood	> 10mm	19mm	Any	90
59021 (V4)	Vertical	Hardwood	11 > 25	13mm	Any	60

Test Reference	Vertical or Horizontal	Substrate	Seal width	Seal depth	Backer (if any)	Integrity
59021 (H3)	Horizontal	Softwood	> 10mm	18mm	Any	90
59021 (H4)	Horizontal	Softwood	11 > 25	18mm	Any	60
59021 (V2)	Vertical	Softwood	> 10mm	19mm	Any	90
59021 (V1)	Vertical	Softwood	11 > 25	18mm	Any	60

## TESTED IN CONJUNCTION WITH AIM FIRE BARRIERS

AIM Acrylic Intumescent Mastic has been tested with all AIM Cavity and Fire Barrier products. When correctly applied, the full depth of the seal, the intumescent mastic has consistently shown an ability to outperform the barrier itself and is therefore an ideal medium to complete an imperfect installation seal. Please see the individual product data sheets for guidance as to how to apply the mastic where necessary.



## TEST REPORTS

BRE Global Assessment Report P125064-1003 Issue 1 dated 31st August 2023

## HANDLING

Gloves, goggles, masks needed when installing fire protection products created from mineral fibre.

## INSTALLATION

Surfaces to be sealed should be sound, clean, dry, and free from dust and other loose matter.

Any oil or grease should be cleaned off non-porous substrates.

Movement joints need to be filled with a suitable packing strip, e.g., polyethylene foam or strips of stone wool.

Cut cartridge nozzle at a 45-degree angle and the top off the cartridge. Screw the nozzle onto it.

Gun the sealant into the joint, ensuring full contact with both sides and fully filling and gaps and voids the entire depth of the barrier. Smooth the sealant surface within 3 to 5 minutes with a suitable tool dipped in diluted detergent, rather than using a wetted finger.

## STORAGE

Supplied in 310ml cartridges / 25 cartridges to a box.

Protect from frost above 5°C

AIM Intumescent Sealant has a shelf life of 18 months from manufacture in unopened containers.

## OPERATION AND MAINTENANCE

This product does not contain moving parts and, if undisturbed in the cavity, requires no routine inspections or maintenance.

## HEALTH AND SAFETY

Contains 1,2-benzisothiazol-3(H)-one. May produce an allergic reaction.

Avoid release into the environment.

Dispose of the contents / container in accordance with local / national regulations.

Safety Data Sheet available upon request.

## ENVIRONMENTAL

Wastes, including emptied containers, are controlled waste

Cardboard cartons are widely recycled.

Cartridges and extruded material should be processed under European Waste Code (EWC) 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

## ORDERING

To order this product the following information will be required:

- Approximate Quantity.
- Delivery location

There is no minimum order quantity or value although small orders may attract transport surcharges.

## TECHNICAL SUPPORT

Technical Support is available from our experienced sales team on 01293 582 400 or [sales@aimlimited.co.uk](mailto:sales@aimlimited.co.uk)

## ABOUT AIM

AIM are a quality insulation convertor with over 30 years' experience in the design, testing & manufacturing of high-quality fire barriers for customers worldwide.

## VERSION CONTROL

Issue 1 - 06 2024

This document replaces and supersedes all previous versions.

The current version number can be verified at <https://www.aimlimited.co.uk/downloads/> or call AIM on 01293 582400

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