FireMastic-300

Advanced formula intumescent fire-rated mastic for up to 5 hours protection from fire and smoke
Approved to AS1530.4 (2005)


Technical Data Sheet

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KEY BENEFITS

- High performance 5 hours fire rated mastic
- Intumescent
- Up to a 63dB sound reduction
- High yield, double the usage of most sealants
- Available in 310ml cartridge or 600ml foil sausages

INTRODUCTION

FireMastic-300 intumescent Fire-Rated Acrylic Sealant is a one part acrylic emulsion that is designed to resist the passage of fire, smoke and sound. FireMastic-300 will intumesce and form a char when exposed to the heat of a fire, which will prevent the passage of fire and smoke for up to 5 hours in both integrity and insulation. In normal use it will also maintain the sound reduction index of a structure.

FireMastic-300's superior acoustic properties means it offers up to a 63dB sound reduction, making it ideal for high performance STC installation.

PHYSICAL SPECIFICATION

FireMastic-300 is water based, non-sag, fire rated acrylic sealant. It is specifically designed for interior joints with up to 40% movement (+/- 20% either direction) of the original joint width.

FireMastic-300 does not emit halogenated by products under fire conditions and contains no raw materials known to have an estrogenic effect on the environment. It has good unprimed adhesion to a wide variety of common building substrates.

Sizes available:	310ml, 600ml
Product code:	FM300
Shrinkage:	10-12%
Slump:	Nil at 20mm
Drying time:	Touch dry at 15 min (23deg)
Flexibility:	40% (+/- 20% of joint)
FRL:	Up to -/300/300
STC Rating:	Up to 65dB
Paintable:	Yes, once cured

APPLICATION

FireMastic-300 is ideal for the following fire rating applications:

- ✓ Linear gaps seals in plasterboard and dry wall linings
- ✓ Sealing and filling joints in fire rated partition walls and joints
- ✓ Sealing of low movement construction joints
- ✓ Sealing the perimeter of intumescent dampers
- ✓ Secondary sealing around penetration services
- ✓ Areas requiring acoustic barriers or sound reduction
- ✓ Internal use only

PERFORMANCE SPECIFICATIONS

FireMastic-300 is approved to AS1530.4:2005 (Report No FAR3463), offering up to -/300/300 FRL (see performance tables overleaf for more details), and AS4072.1. It also carries approvals for EN1366-4 and BS476 Part 20. Additionally, via its advanced formula, FireMastic-300 can achieve up to -/300/300 FRL with only a 2:1 width:depth fill ratio, meaning less material is required and installation costs are substantially lower than most other mastics on the market.

INSTALLATION

1. Ensure all surfaces are clean, dry and free from grease.
2. Use masking tape to provide straight edges around surfaces, if required.
3. Cut nozzle to required bead size and apply to substrate via a caulking gun. Took off joint with a wet spatula within 5 minutes.
4. Clean tools immediately after use with water.
5. Tack dry within 30mins, cures 2mm per 24hrs.

Masonry Walls and Floors

DIRECTION OF FIRE EXPOSURE

In the fire tests the seals were positioned in the most onerous direction and therefore the FRLs below relate to fire from either direction when the seals are mounted flush with the face.

250mm Thick Masonry Wall Gap
Up to -/300/300 FRL

Gap Width (mm)	Seal Depth (mm)	FRL (minutes)
5	10	-/300/300
10	10	-/300/300
15	10	-/300/300
20	10	-/300/300
25	15	-/300/180
30	15	-/300/180
35	25	-/300/180
40	25	-/300/180
45	25	-/300/180
50	25	-/300/180

250mm Thick Masonry/Mild Steel Wall Gap
Up to -/300/90 FRL

Gap Width (mm)	Seal Depth (mm)	FRL (minutes)
5	15	-/300/90
10	15	-/300/90
15	15	-/300/90
20	15	-/300/90
25	15	-/300/90
30	15	-/300/90

BACKING RODS

FireMastic-300 was tested with foamed polyethylene (PE) backing rods, which controls the depth of seal and fills only part of the gap. PE or similar material rods may be used provided it does not extend to within the depth of the seal on either face.

250mm Thick Masonry Floor Gap
Up to -/300/180

Gap Width (mm)	Seal Depth (mm)	FRL (minutes)
5	10	-/300/120
10	10	-/300/120
15	10	-/300/120
20	10	-/300/120
25	15	-/300/60
30	15	-/300/60
35	20	-/300/60
40	20	-/300/60
45	25	-/300/180
50	25	-/300/180

100mm & 150mm Walls and Floor Specimens
Masonry-Masonry and Masonry-Mild Steel

Gap Width (mm)	Seal Depth (mm)	Gap Faces	FRL (minutes)
20	10	Masonry 100mm Wall	-/120/30
20	10	Masonry/Steel 100mm Wall	-/120/-
20	10	Masonry 150mm Floor	-/240/30
20	10	Masonry/Steel 150mm Floor	-/240/30
50	25	Masonry 100mm Wall	-/120/60
50	25	Masonry 150mm Wall	-/240/90
50	25	Masonry/Steel 150mm Wall	-/240/90

Plasterboard Gap Seals

DRYWALL CONSTRUCTION & EXPANSION JOINTS

FireMastic-300 can be used to provide an FRL of at least **-/300/300**, subject to the maximum integrity and insulation of the wall. Generally as the fire resistance of plasterboard wall increases, the thickness of lining increases also and therefore the depth of the seal will increase. The gap width of up to 20mm must be the full depth of the plasterboard and will offer the FRL of the wall system up to -/300/300.

Examples of suitable plasterboard systems (timber framed or steel framed):

- ✓ T-junction between masonry wall and plasterboard wall
- ✓ T-junction between 2 plasterboard walls
- ✓ Control joint in plasterboard wall
- ✓ Pipe and service penetrations through plasterboard (such as electrical services or ductwork) where a secondary seal is required.

DAMPERS

FireMastic-300 can be used to seal around the perimeter of intumescent dampers, fixed either to the face of a wall or in line with the wall. In both situations, FireMastic-300 may be used to fill any gaps.

Face-fixed Dampers: apply FireMastic-300 to the section of damper in contact with the wall and to any steel brackets attached to the wall. The damper must overlap the wall by at least 50mm and any gaps must not exceed 5mm.

In-line fixed Dampers: where the damper is fixed in line with the wall, apply FireMastic-300 all around the edge of the damper. The gap between the edge of the damper and structural opening must not exceed 25mm and the sealant must be filled to the full depth of the damper. This is significantly in excess of any linear gap seal and is therefore able to maintain the fire resistance of the damper.

Notwithstanding the damper application specification, the manufacturer's installation instructions must be followed. However, FireMastic-300 may be used in place of the specified sealant.

STORAGE & DISPOSAL

FireMastic-300 is not affected by external environments. However, for long term storage and ease of installation, FireMastic-300 should be stored indoors in a dry frost-free environment below 30^0C.

HEALTH AND SAFETY

To learn more about the safe handling of FireMastic-300, see the Material Safety Data Sheet available at www.bossfire.com.au or scan the 3D barcode below with a compatible QR Reader.

Scan here to view MSDS:

LIMITATION

BOSS Fire & Safety Pty Ltd has provided the above technical information in good faith and to the best of its knowledge. This information was deemed to be correct at the time of publication. Should any data come to BOSS Fire & Safety's attention relating to the fire resistance or performance of the product described, BOSS Fire & Safety reserve the right to amend this report.

BOSS Fire & Safety strive to constantly improve and develop products so this information may change without notice.

FURTHER TECHNICAL INFORMATION

For additional technical information on the performance of FireMastic-300 or other BOSS products please contact our Technical Services team on:

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