



Description

FyreBrake is fire and acoustic rated for sealing residential and office partitions, concrete block, tilt-up and precast concrete.

FyreBrake is a high performance, 1-part, 100% polyurethane construction sealant, which does not shrink, dry out or crack.

Recommended Uses

- Sealing expansion joints in
 - Tilt-up and precast concrete construction
 - Brick and concrete block work
- Office and residential partitions
- Perimeter sealing around window and doorframes
- Interior / Exterior

Suitable For Use On

- Plasterboard
- Fibre Cement Sheet
- Solid Concrete
- Brick
- Concrete Block
- Aluminium
- Steel

Features and Benefits

- Fire Rated to AS1530.4 - 2005 (CSIRO Test Reports FS1202 & FS1203)
- Acoustic Rating R_w (STC) = 60 to BCA requirement (RMIT Test Report 1211/06-007/PD)
- VOC Rated
- UV and Weather Resistant
 - Excellent resistance to aging and weathering
 - Permanently flexible, will not shrink or crack
- Thixotropic - No sagging or running
- Easy to dispense in cold weather
- Strong adhesion
- Excellent flexibility - joint movement $\pm 25\%$
- Non-corrosive neutral cure
- Paintable with acrylic based surface coatings
- Complies with:
 - TT-S-00230 C (Type II) Class A, Non-sag, One component
 - ASTM C920 Type S, Grade NS, Class 25, Use-NT, Use-A, Use-M, Use-G, Use-O
 - AAMA 808.3-92
 - Suitable for residential acoustic designs up to AAACA 5 Star rating

Typical Properties

Typical properties after 7 days cure at 25°C and 50% RH

Appearance	Grey, Non sag smooth thixotropic paste
Chemical Type	Polyurethane
Specific Gravity	1.6g/ml
Sag	None, ASTM C639
Application Temperature	+4°C to + 40°C
Tool Working Time	2-4 hours @ 24°C, 50% RH
Cure Rate	2 mm per 24 hour period
Max. Joint Movement	$\pm 25\%$
Max. Joint Width	50mm
Elongation at Break	500% ASTM D412
Cure Hardness	Shore A 47, ASTM C661
Peel Adhesion	67 N, ASTM C794
Maximum Tensile Strength	2.24 N/mm ² , ASTM D412
Service Temperature	-40°C to + 93°C
Water Resistance	Passes AAMA 800
VOC	55 gram / litre
Acoustic Rating	Up to R_w (STC) = 60 $R_w + C_{tr} = 52$
Fire Rating AS1530.4-2005	Up to 4 hours

Precautions

- Do NOT use in:
 - Joints subject to prolonged immersion in water eg Swimming pools
 - Contact with chlorinated water
 - Joints subject to foot or vehicle traffic
 - Marine applications
 - Contact with materials containing bitumen
 - Prolonged contact with hydrocarbons
 - Glazing applications
 - Below grade applications
- FyreBrake may not cure when used in confined or air free spaces
- Do not apply solvent or oil-based paint to FyreBrake
- Do not use on Teflon, polyethylene or polypropylene.
- Pre-test for staining or discolouration on unpredictable absorptive surfaces such as marble, limestone or granite.

Joint Design

Consult Joint Design Guide available from Ramset or the web.

Unless otherwise specified, joint design must conform to the following joint width to joint depth relationships.

Joint Width	Joint Depth
6 mm to 10 mm	Equal to Joint Width
10 mm to 20 mm	10 mm
20 mm to 50 mm	Equal to 1/2 x Joint Width

Correct joint design is necessary to ensure sealants do not split or tear.

- Depth must not be less than 6-mm
- Control joint depth using closed-cell polyethylene backer rod available from Ramset, or other non-adherent material to prevent three-sided adhesion
- Joint movement capacity is ± 25% of nominal joint width.
- Anticipated joint movement must be less than the joint movement capacity.
- Lap shear joints should have a bead width equal to, or greater than twice the anticipated movement.
- For all applications requiring a high degree of dynamic movement the designed joint width should be at least four times the total anticipated joint movement

Failure to observe these recommendations can result in tearing or splitting of the sealant.

Application Instructions

Joint Preparation

Concrete must be at least 28 days old.

Surfaces must be clean, dry, sound and free from laitance, dust, oil, grease, form release agents, sealants, surface coatings, adhesives or any agent, substance, material or contaminant that may interfere with the bond or may later affect the sealant.

Remove all dirt, dust, laitance and loose materials by vigorous wire brushing and compressed air jet.

Joint faces must be sound, flat and free of surface irregularities. Saw cut or reface any joint faces that do not meet these requirements with a suitable epoxy or cement mortar.

For a neat finish, cover the face of joint edges with masking tape before applying FyreBrake. To avoid three-sided adhesion, ensure a bond breaker, such as Ramset Backer Rod is used in the joints prior to application of FyreBrake.

Priming: Priming is not necessary in most circumstances.

If in doubt about the suitability of the surface, test adhesion before committing to the whole job.

- Apply bead of FyreBrake to job surface
- Use spatula to force sealant bead into contact with surface
- Allow to cure through (See Curing)
- Assess bond by removing sealant

Mixing

No mixing is required.

Application

Ensure surface and sealant temperatures are above 5°C.

Apply FyreBrake sealant in a continuous operation using a positive pressure to properly fill and seal the joint.

Tool the sealant with adequate pressure to ensure it is forced against the back-up material and onto the joint surfaces to promote adhesion.

A tool with a convex profile is recommended to keep the sealant within the joint.

Tooling Time: Tooling should be completed within 2 hours of application.

Excess sealant should be wiped from all surfaces with a dry cloth before it skins. Cured FyreBrake is difficult to remove without affecting the substrate it has been applied to.

Masking around joints before applying sealant will make clean up easier. Remove masking tape before sealant skins (about 2 hours).

Curing: FyreBrake is rain resistant in vertical joints after 24 hours from application.

Cure Rate is 2 mm of thickness per 24-hour period. Full cure through is achieved within 7 days.

Painting: Apply water-based Acrylic surface coatings after 24-hours. Do not use oil or solvent-based coatings on FyreBrake.

Clean Up

Clean up uncured material on equipment with xylene or solvent immediately after use. Cured FyreBrake is difficult to remove via chemical means and mechanical means may be necessary.

Estimating Chart

Lineal metres per 960g (600ml) Sachet (approx)

Joint Depth	Nominal Joint Width (mm)							
	6	8	10	12	15	20	25	50
6mm	16.6	-	-	-	-	-	-	-
8mm	x	9.4	-	-	-	-	-	-
10mm	x	x	6.0	5.0	4.0	3.0	-	-
12.5mm	x	x	x	x	x	x	1.9	-
25mm	x	x	x	x	x	x	x	0.5

Lineal metres per 450g (300ml) Cartridge (approx)

Joint Depth	Nominal Joint Width (mm)							
	6	8	10	12	15	20	25	50
6mm	8.3	-	-	-	-	-	-	-
8mm	x	4.7	-	-	-	-	-	-
10mm	x	x	3.0	2.5	2.0	1.5	-	-
12.5mm	x	x	x	x	x	x	1.0	-
25mm	x	x	x	x	x	x	x	0.3

Coverage based on nominal dimensions

“-” Shallow joint. Risk of sealant tearing. Make joint deeper.

“x” Joint depth > width. Risk of sealant tearing. Adjust depth with backing rod.

Refer above for correct joint design details.

Health and Safety

- Avoid contact with the skin, eyes.
- Avoid breathing vapour.
- If swallowed, do not induce vomiting give a glass of water.
- Wear protective gloves when using.
- For more detailed information refer to the Material Safety Data Sheet available from Ramset or the web

Fire

FyreBrake is not flammable for transport and storage. Cured and uncured FyreBrake is combustible in the event of fire.

Storage

Store between 5°C and 27°C. Shelf life is 1 year in original unopened container.

Colour, Pack Sizes and Order Numbers

Colour	Pack Size	Order No.
Grey	600ml Sausage	FYBRGYS