

Fire and Acoustic Rated Acrylic Construction Sealant

**Australian Made Product** 

# **BLAZEBRAKETM**

BLAZEBRAKE is fire and acoustic rated forsealing residential and office partitions and concrete block BLAZEBRAKE is a water clean-up, 1-part, flexible Acrylic construction sealant, which does not dry out or crack.

It is suggested if application is strictly adhered to manufactures instructions it is believed to have a design life of 10 years from date of manufacture.

#### **Recommended Uses**

- Sealing gaps around pipes, cables, ducts and services, which penetrate fire-rated walls and floors
- Sealing joints and penetrations in acoustic partitions and walls
- Sealing joints in precast and tilt-up construction
- To prevent the spread of fire and smoke through walls and floors
- Refer to Blazebrake fire test certificates for approved fire applications



# Suitable For Use On

- Concrete
- CSR Hebel® Aerated Autoclaved Concrete
- Concrete Block
- Plasterboard
- Fibre cement







BLBRGYS 600 ml



- Fire rated according to AS1530.4 2005, BS476: Part 20:1987 and AS4072-1.1-1992
- Acoustic Rated
- Flexible and crack resistant joint movement ±15%
- User Friendly
  - o Easy to dispense in cold weather
  - o Low odour
  - o Easy tooling
  - o Water clean up
  - o Sag Resistant
- OH&S Friendly
  - o Not HAZARDOUS no isocyanates,
  - no heavy metals, no solvents, no asbestos
  - o Low VOC
  - o Paintable with acrylic coatings and oil-based coatings after 24 hours at 20°C.

#### **Typical Properties**

Colour:	Grey
Chemical Type:	Acrylic co-polymer
Service Temperature:	-20°C to + 90°C
Specific Gravity (Density):	Wet 1.6 Kg / L Dry 1.8 Kg / Lq
Application Temperature:	+5°C to + 35°C
Tool Working Time:	15 minutes at 25°C
Max. Joint Movement:	±15%
Max. Joint Width:	50mm
Full Cure:	7 days at 25°C
Acoustic Rating:	Rw 56
VOC:	17 g/L
Fire Rating:	Up to 4 hours*

Note: \*Fire Rating Certificates Available on Request Refer to BRANZ Fire Test Certificates 439, 440 and 441





# Transport & Storage

BLAZEBRAKE is not flammable for transport and storage.

#### **Precautions**

- Not for temporary or permanent immersion in water. Prolonged contact with water may result in loss of adhesion.
- Not recommended for exterior applications use Ramset<sup>TM</sup> FyreBrake<sup>TM</sup> Polyurethane Sealant
- Do not use in horizontal joints in decks, patios, driveways or terrace joints where standing water, traffic, high abrasion or physical abuse is encountered
- May not dry in totally confined or air free spaces
- Do not use on surfaces with special protective or cosmetic coating such as mirrors, reflective glass or surfaces coated with Teflon, polyethylene or polypropylene
- Pre-test on absorptive natural stone surfaces such as marble, limestone or granite for staining and/or discolouration
- Do not use in contact with material containing bitumen.

#### **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
6mm to 10mm	Equal to Joint Width
10mm to 20mm	10mm
20mm to 50mm	Equal to ½ x Joint Width

- Depth must not be less than 6 mm.
- Joint movement (strain) capacity of BLAZEBRAKE is ± 15% 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 seven times the total anticipated joint movement.
- Failure to observe these recommendations can result in tearing or splitting of the sealant.

# **BLAZEBREAK**

### **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, 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.

Joint faces must be sound, flat and free of surface irregularities. Concrete panel edges to be well-compacted concrete with Class 2 finish according to AS3610.

For any joint faces not meeting these requirements, form a fresh joint surface by saw cutting or refacing with a cement mortar.

For a neat finish, cover the face edges of the joint with masking tape before applying BLAZEBRAKE.

To avoid three-sided adhesion, install a bond breaker, such as Ramset Backer Rod in the joints prior to application of BLAZEBRAKE.

Priming not usually required.

If surface quality is in doubt, apply a bead of sealant and allow to dry, to test adhesion before committing to the whole job.

BLAZEBRAKE is suitable for use on CSR Hebel® AAC without primer.

#### **Application**

Ensure surface and sealant temperatures are greater than 5 C. Apply BLAZEBRAKE sealant in a continuous operation using positive pressure to properly fill and seal the joint. Tool the sealant to force it against the back-up material and onto the joint surfaces to promote adhesion. Use a tool with a convex profile to keep the sealant within the joint.

Wipe excess sealant from all surfaces with a damp cloth before it dries.

If masking tape is used, remove it before sealant skins.

**Tooling Time:** Complete tooling within 15 minutes of application.

**Skinning Time:** 30 Minutes @  $25^{\circ}$ C

**Curing:** Drying depends on temperature, humidity and cross-section dimensions when installed Typically full cure is achieved within 7 days.

#### **Pack Sizes And Order Numbers**

300ml cartridge	BLBRGYC
600ml Sachet	BLBRGYS



#### **Storage**

Store between 5°C and 30°C. Shelf life is 1yr in original unopened container.

**HEALTH AND SAFETY** BLAZEBRAKE is water-based so fumes and odour are minimal. Avoid contact with the skin, eyes. Wear protective gloves when using. For more detailed information refer to the Material Safety Data Sheet.









# **ESTIMATING CHART**

# Lineal Metres per 960 g (600 ml) Sachet (Approx)

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

# Lineal Metres per 450 g (300 ml) Cartridge (Approx)

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

#### Coverage based on nominal dimensions

Refer to the above Joint Design Section for correct joint design details.

<sup>&</sup>quot;--" Shallow joint. Risk of sealant tearing. Make joint deeper.

<sup>&</sup>quot;x" Joint depth > width. Risk of sealant tearing. Adjust depth with backing rod.



# **BLAZEBRAKE APPROVED FIRE RATING CONFIGURATIONS**

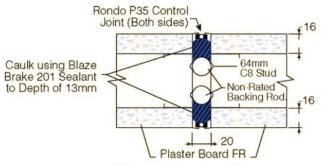
Before using BLAZEBRAKE for Fire Rated applications, refer to full fire test reports available from Ramset<sup>TM</sup> or **www.ramset.co.nz** and **www.ramset.com.au** 



BLAZEBRAKE Approved Configurations for 1 hour Fire Rated Sealing of Joints and Penetrations in Fire Rated Plasterboard to AS1530.4 –1990 (Refer BRANZ Fire Test Certificate 439)

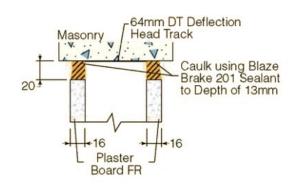
#### Config 1 - 1HR. Control Joint - Dry Wall

Fire Test Report:	FP3698	
FRL:	-/60/60	
Plasterboard Thickness:	16 mm	
Sealant Thickness:	13 mm	
Joint Width:	20 mm	



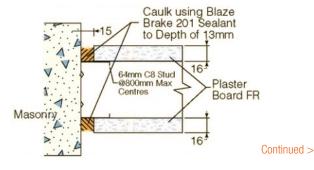
#### **Config 2 - 1HR. Deflection Head - Dry Wall**

Fire Test Report:	FP3698
FRL:	-/60/60
Plasterboard Thickness:	16 mm
Sealant Thickness:	13 mm
Joint Width:	20 mm



#### Config 3 - 1HR. Intersection With Masonry - Dry Wall

Fire Test Report:	FP3698
FRL:	-/60/60
Plasterboard Thickness:	16 mm
Sealant Thickness:	13 mm
Joint Width:	20 mm

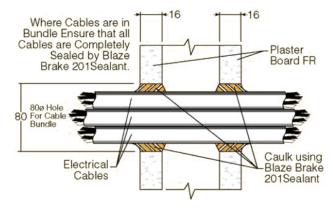






# **Config 4 - 1HR. Cable Penetration - Dry Wall**

Fire Test Report:	FP3698	
FRL:	-/60/60	
Plasterboard Thickness:	16 mm	
Sealant Thickness:	16 mm	
Cable Bundle Diameter:	65 mm	
Penetration Diameter:	80 mm	

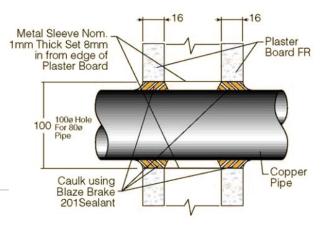


### **Config 5 - 1HR. Pipe Penetration - Dry Wall**

FP3698
-/60/0
-/60/60
16 mm
16 mm
76 mm
100 mm

To obtain -/60/60 FRL, fit 240 mm diameter x 450 mm long metal mesh radiation screen concentrically around copper pipe on non-fire side

**Metal Sleeve:** Minimum 0.6 mm galvanised steel sleeve 100 mm diameter x 80 mm long



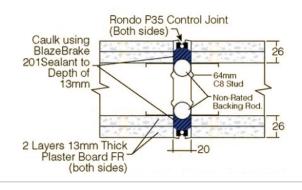




BLAZEBRAKE Approved Configurations for 2 hour Fire Rated Sealing of Joints and Penetrations in Fire Rated Plasterboard to AS1530.4 –1990 (Refer BRANZ Fire Test Certificate 440)

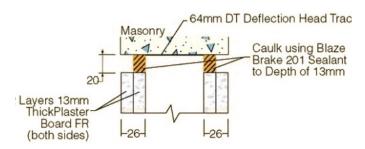
#### Config 1a - 2HR. Control Joint - Dry Wall

Fire Test Report:	FP3699	
FRL:	-/120/90	
Plasterboard Thickness:	26 mm	
Sealant Thickness:	13 mm	
Joint Width:	20 mm	



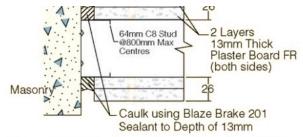
#### Config 2a - 2HR. Deflection Head - Dry Wall

Fire Test Report:	FP3699
FRL:	-/120/90
Plasterboard Thickness:	26 mm
Sealant Thickness:	13 mm
Joint Width:	20 mm



# Config 3a - 2HR. Intersection With Masonry - Dry Wall

Fire Test Report:	FP3699	
FRL:	-/120/90	
Plasterboard Thickness:	26 mm	
Sealant Thickness:	13 mm	
Joint Width:	20 mm	

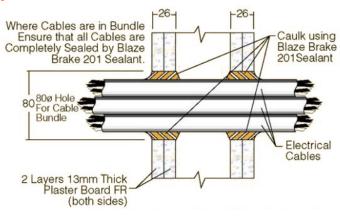






# Config 4a - 2HR. Cable Penetration - Dry Wall

Fire Test Report:	FP3699	
FRL:	-/120/60	
Plasterboard Thickness:	26 mm	
Sealant Thickness:	26 mm	
Cable Bundle Diameter:	65 mm	
Penetration Diameter:	80 mm	

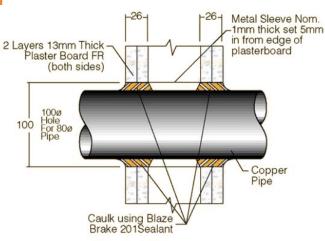


### Config 5a - 2HR. Pipe Penetration - Dry Wall

Fire Test Report:	FP3699		
FRL (No Radiation Screen):	-/120/0		
FRL (Radiation Screen):	-/120/120		
Plasterboard Thickness:	26 mm		
Sealant Thickness:	26 mm		
Pipe Outer Diameter:	80 mm		
Penetration Diameter:	100 mm		

To obtain -/120/120 FRL, fit 240 mm diameter x 450 mm long metal mesh radiation screen concentrically around copper pipe on non-fire side

**Metal Sleeve:** Minimum 0.6 mm galvanised steel sleeve 100 mm diameter x 80 mm long



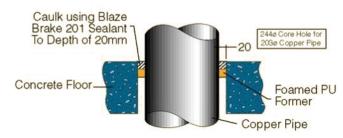




**BLAZEBRAKE Approved Configurations for Fire Rated Sealing of Joints and Penetrations in Concrete Floors** to AS 1530.4 – 1990 (Refer BRANZ Fire Test Certificate 441)

### Config 1\_1 - 2HR. Pipe Penetration - Concrete Floors

Fire Test Report:	FP3701	
FRL: (No Radiation Screen)	-/120/0	
Concrete Thickness:	180 mm	
Sealant Thickness:	20 mm	
Pipe Outer Diameter:	203 mm	
Penetration Diameter:	203 mm	



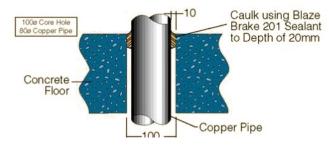
# Config 2\_1 - 4HR. Control Joint - Concrete Floors

Fire Test Report:	FP3701 -/240/240	
FRL:		
Concrete Thickness:	170 mm	
Sealant Thickness:	12.5 mm	
Joint Width:	25 mm	



### **Config 3\_1 - 4HR. Pipe Penetration - Concrete Floors**

Fire Test Report:	FP3700
FRL (No Radiation Screen):	-/240/30
FRL (With Radiation Screen):	-/240/240
Concrete Thickness:	170 mm
Sealant Thickness:	20 mm
Pipe Outer Diameter:	80 mm
Penetration Diameter:	100 mm



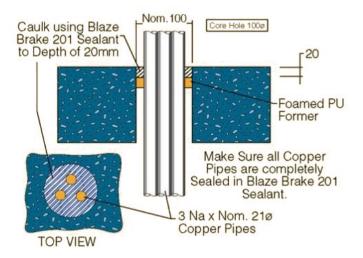
To obtain -/240/240 FRL, fit 240 mm diameter x 450 mm long metal mesh radiation screen concentrically around copper pipe on non-fire side





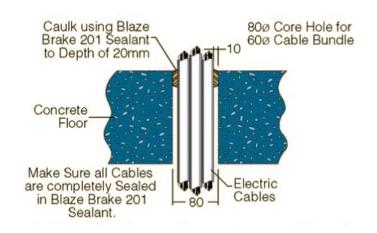
#### Config 4\_1 - 4HR. Cable Penetration - Concrete Floors

Fire Test Report:	FP3701	
FRL (No Radiation Screen):	-/240/0	
Concrete Thickness:	180 mm	
Sealant Thickness:	20 mm	
Pipe Outer Diameter:	21 mm x 3	
Penetration Diameter:	100 mm	



#### **Config 5\_1 - 4HR. Pipe Penetration - Concrete Floors**

Fire Test Report:	FP3700	
FRL	-/240/120	
Concrete Thickness	170 mm	
Sealant Thickness	20 mm	
Cable Bundle Diameter	60 - 65 mm	
Penetration Diameter	80 mm	







BLAZEBRAKE Approved Configurations for Fire Rated Sealing of Pipe Penetrations in Concrete Floors to AS 1530.4 – 1990 (Refer BRANZ Fire Assessment Report FAR3318)

### **Concrete Depth: 170 mm**

Pipe Specimen Nominal Diameter	FRL	Radiation Guard	Sealant Width x Depth	Backing Rod
Copper 20 mm	-/240/240	Yes	10 x 20 mm	No
Copper 20 mm	-/240/30	No	10 x 20 mm	No
Copper 25 mm	-/240/240	Yes	10 x 20 mm	No
Copper 25 mm	-/240/30	No	10 x 20 mm	No
Copper 32 mm	-/240/240	Yes	10 x 20 mm	No
Copper 32 mm	-/240/30	No	10 x 20 mm	No
Copper 40 mm	-/240/240	Yes	10 x 20 mm	No
Copper 40 mm	-/240/30	No	10 x 20 mm	No
Copper 50 mm	-/240/240	Yes	10 x 20 mm	No
Copper 50 mm	-/240/30	No	10 x 20 mm	No
Copper 65 mm	-/240/240	Yes	10 x 20 mm	No
Copper 65 mm	-/240/30	No	10 x 20 mm	No
Copper 100 mm	-/120/0	No	20 x 20 mm	Yes
Stainless Steel 316 200 mm x < 2.2 mm wall thickness	-/120/0	No	20 x 20 mm	Yes

#### **Radiation guard:**

Metal mesh radiation screen concentrically around copper pipe on non-fire side. Diameter at least 3 times pipe diameter and at least 450 mm long.

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#### customer service

Sales, Orders and Enquiries

1300 780 063 Tel: Fax: 1300 780 064

enquiry@ramset.com.au Email: Web: www.ramset.com.au

#### Ramset™ New Zealand

Sales, Orders and Enquiries

0800 RAMSET (726738) Tel:

09 444 2864 Fax:

Email: info@ramsetreid.co.nz Web: www.ramset.co.nz

# australian trade centres

5/71 Victoria Crescent, Abbotsford 3067

1 Ramset Drive, Chirnside Park 3116

115 Sir Donald Bradman Drive, Hilton 5033

71 Carnarvon Street, Silverwater 2128

3/8 Channel Road, Mayfield West 2304

53 Doggett Street, Newstead 4006

Western Australia 525 Abernethy Road, Kewdale 6105

#### new zealand trade centres

Auckland - Glenfield 23-29 Poland Rd

p 09 447 1296 f 09 447 1297

e albany@ramsetreid.co.nz

**Auckland - Penrose** 35 Station Rd

p 09 579 3072

f 09 579 1701

e auckland@ramsetreid.co.nz

123 Central Park Drive p 09 838 9865

f 09 837 3014

e henderson@ramsetreid.co.nz

Unit 1, 333 East Tamaki Road

p 09 272 4701 09 272 4703

e easttamaki@ramsetreid.co.nz

Territory Manager

p 09 438 2010

f 09 438 9188

e whangarei@ramsetreid.co.nz

15 Somerset St

p 07 847 9047 f 07 847 9980

e hamilton@ramsetreid.co.nz

**Tauranga - Mt Maunganu** Unit 1, 15 Portside Drive

p 07 572 0520

f 07 572 0530

e tauranga@ramsetreid.co.nz

Waterford Park Estate

50 Old Taupo Rd p 07 348 0190

f 07 348 9200

e rotorua@ramsetreid.co.nz

New Plymouth Territory Manager p 06 759 8984 f 06 759 8983

e newplymouth@ramsetreid.co.nz

903 Tremaine Avenue

p 06 357 6745

f 06 357 6775

e palmerstonnorth@ramsetreid.co.nz

Napier - Onekawa 124 Taradale Road

p 06 843 0067

f 06 843 0043

e napier@ramsetreid.co.nz

**Lower Hutt** 46 Victoria St

p 04 569 7247

f 04 566 8752

e lowerhutt@ramsetreid.co.nz

147 Taranaki St

p 04 384 4138

04 385 0868

e wellington@ramsetreid.co.nz

Territory Manager p 03 548 2664

03 548 3559

e nelson@ramsetreid.co.nz

Christchurch - City 120 Montreal St

p 03 341 8710

f 03 341 8730

e christchurch@ramsetreid.co.nz

**Christchurch - Hornby** 

Unit 2/37 Foremans Rd

p 03 349 4749

03 349 4750

e hornby@ramsetreid.co.nz

**Dunedin** 5 Melbourne St

p 03 455 1134

03 456 1388

e dunedin@ramsetreid.co.nz

Invercargill
Territory Manager
p 03 218 9241
f 03 214 7787

e invercargill@ramsetreid.co.nz

200A Glenda Dr

p 03 442 8073

03 442 8074

e queenstown@ramsetreid.co.nz

ranisetrefu<sup>™</sup> I raniset Drive, Offiristice Park 3116
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