

# SabreSeal™ FRM



Fire Protection

**SabreSeal FRM Hybrid MS Fire Sealant is a single component sealant designed for fire-rated movement and connection joints. It is high performing with a fast, neutral and odourless cure, resulting in a permanently elastic fire resistant joint.**

## Advantages

- Superior Performance:** Strong adhesion to most common surfaces and permanent flexibility ( $\pm 25\%$ )
- Reliable Durability:** Outstanding environmental, UV and corrosion resistance
- Fire Resistance:** Up to 4 hour fire rating according to AS1530.4
- Eco-friendly formulation:** Silicone, isocyanates and solvent free. It will not emit halogenated by-products under fire conditions

## Designed for:

- Fire resistant sealing of vertical joints in concrete tilt panel
- Bonding most construction materials
- Applications that have high UV exposure

## Physical Properties

Specification	Typical Values
Chemical base	Hybrid Polymer
Curing system	Moisture
Specific gravity	Approx. 1.5 ± 0.03 g/ml
Tack free time	Approx. 40-50 minutes (at 23°C; 50% R.H.)
Skin forming time	Approx. 70 minutes (at 23°C; 50% R.H.)
Curing rate	Approx. 2-3 mm/24 hr.
Resistance to flow (ISO 7390)	0 mm (at 5°C and 50°C)
Elastic recovery (ISO 7389)	> 80% (at 100% elongation)
Movement capability (ISO 11600)	± 25%
Loss of volume (ISO 10563)	< 5%
Shore a hardness (ISO 868)	30
Total VOC content	Approx. 25 g/l
Application temperature	Between +5°C to +40°C
Service temperature	-40°C to +90°C

### Tensile Properties

ISO 37 (2mm thickness, S2 dumbbells, 7 days 23°C;50% R.H.)

E-Modulus 100%	0.50 MPA
Tensile Strength	1.50 MPA
Elongation At Break	> 550 %

These values may vary depending on environmental factors such as temperature, moisture, and type of substrates. The time until complete curing may be extended at lower temperature, lower humidity or increasing film thickness.

## Fire Rating: Fire resistance according to AS1530.4

Joint Dimensions			Rating According AS1530.4	
Width (mm)	Depth (mm)	Orientation	Integrity (E) (Min.)	Insulation (I) (Min.)
20	15	Vertical	244	244
50	25	Vertical	244	244

Vertical joints were tested in a 150mm thick vertical concrete slab. Sealant was applied to both sides and finished flush with the face of the concrete slab.

## Preparation

- Substrate surface must be dry and clean; free of dirt, grease, oil, or standing water
- For a neat finishing, use masking tape and remove it within the working time
- For movement joints, use backing material to avoid 3 sided bonding

## Application Direction

- 1 Cut off the end of the sausage and insert into a manual or pneumatic gun. Place the sausage nozzle on top of the sausage, and screw on the cap. Cut back the nozzle to the required size. Apply adhesive sealant to the substrate. **For joint application:** Insert nozzle into joint, apply adhesive sealant moving gun in a forwards direction - never pull backwards as air may be trapped in joint preventing a good seal.
- 2 Tool the sealant within 2-3 minutes of extrusion before it skins.
- 3 Allow to dry for one hour before applying water-based paint.
- 4 Uncured sealant can be cleaned up with damp cloth.

## Joint Design

- The specified sealant bead size should be calculated to comply with the compression and extension capabilities of the sealant in relation to the anticipated joint width due to expansion and contraction
- Minimum bead size should not be less than 6mm to accommodate movement
- Sealant design joint width-to-depth ratio should be 2:1

## Clean Up

- Remove excess sealant immediately with Sabre CC Citrus Cleaner. Ensure surface is solvent resistant before cleaning
- Cured sealants can only be removed mechanically

## Product Certifications

SabreSeal FRM meets the following specifications:

- FIRE RESISTANCE classification: 4 hours according to AS1530.4

### Storage & Shelf Life

The shelf life is 12 months in its unopened original packaging, in dry conditions and protected from direct sunlight at temperatures between +5°C and +25°C.

### Packaging & Colour

**Available colours:** Grey

**Packaging Size:** 600ml foil pack

### Limitations

- Not recommended for continuous water emersion and not for PE, PP, Teflon and bituminous surfaces
- Painting over with highly filled emulsion paints can cause cracks in paint film

### Health & Safety

Before handling or opening this product, obtain & read the Safety Data Sheet (SDS) available at [www.sabreadhesives.com](http://www.sabreadhesives.com) and ensure all safety precautions are followed.

### First Aid

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766) and have the SDS and product label at hand.

SabreSeal\_FRM\_TDS\_2503

#### IMPORTANT NOTICE

Sabre Adhesives Limited makes no warranties, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of application. Due to the fact that specific substrates, such as: plastics, polycarbonates, etc, may differ from manufacturer to manufacturer we recommend preliminary compatibility tests. Please remember that many factors can affect the use and performance in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a product. Given the variety of factors that can affect the use of our products some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

#### LIMITATION OF REMEDIES AND LIABILITY

If the product is proved to be defective, the sole remedy shall be to refund the purchase price or to repair or replace the defective product. Sabre shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

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