

RCM (Roofing and Cladding Materials Ltd)



PRODUCT FR PRO

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Version 2

ISO No. 5152

General Description

RCM Silicone Sealant FR Pro is a one-part silicone sealant formulated to provide a high degree of fire resistance in a variety of joint configurations.

FR Pro exhibits excellent unprimed adhesion to most building components and is suitable for sealing a wide range of construction and expansion joints in buildings, where compartmentalisation within the building is required to control spread of fire.

FR Pro cross links at room temperature to give a flexible low modulus seal which will withstand movement of 25% in constant service throughout a wide temperature range.

It exhibits excellent primerless adhesion to a wide range of substrates such as Glass, Anodised and Mill Finished Aluminium, Steel, St.Steel, rigid PVC, Concrete and other porous surfaces.

Once cured, the sealant offers superb long-term resistance to heat and fire as well as all other general weather elements.

General Applications

Typical applications include; Expansion and construction joints in walls and cladding panels, sealing of service penetrations, roofing and conservatory applications, capping sealant for bead glazing, and general sealing work.

Product Appearance

Soft touch Green in colour

Composition

Silicone

General Technical Properties	Unit	Value	Applicable Standard
Material	Class	F&G-25LM	ISO 11600
Specific Gravity	-	1.36 - 1.38	
Skinning time	mins	*10 - 16 approx	
Tack free Time	mins	*90 approx	
Full Cure	mm/24hrs	*2 - 3 approx	
Extrudability	g/min	70	NMRPS 495A (3mm/3 bars)
Movement accommodation	%	25	
Mechanical Properties on a 2mm thick film			
Modulus at 100% elongation	N/mm ²	0.4	NF T 46002
Elongation at break	%	600	NF T 46002
Tensile Strength	N/mm ²	1	NF T 46002
Mechanical Properties on glass slabs			
Modulus at 100% elongation	N/mm ²	0.35	EN 28339
Elongation at break	%	250	EN 28339
Tensile Strength	N/mm ²	0.5	EN 28339
Service Temp Range	°C	-50 to +150	EN 28339
Application Temperature	°C	+5 to +40	EN 28339
Slump resistance	-	Excellent. May be used in joints up to 25mm wide and 12mm deep	

Fire Resistance

Fire Rating - Integrity	hrs	≥4**	BS EN 1366-4
Fire Rating - Insulation	hrs	≥4**	BS EN 1366-4

**It has been independently tested and achieves in certain joint configurations an integrity AND insulation value in excess of 4 hours.

Limitations of Use

Installation	Silicone sealants generally should not be used in situations where high abrasion may be encountered, or for submerged joints in porous substrates, which may permit water to reach the bond interface. Always check to determine suitability of the sealant on any surface that may give cause for concern.
Tools	Installation requires the following: application gun
Coverage	1 std size cartridge is sufficient to seal approximately 8.5m with a 6mm x 6mm bead or 2.5 m with a joint dimension of 15mm x 8mm.

Health & Safety

Safety data sheet must be read and understood before use.

Handling & Storage

Storage	Store in dry conditions between +5°C and +25°C
Shelf Life	1 Year when stored as recommended in original unopened packaging.

Installation

Surface Preparation	Surfaces to which Silicone Sealant is to adhere must be clean and free from loose material, standing water or contaminants which otherwise may impair the bond. Non-porous surfaces such as aluminium should be cleaned with a suitable product.
Application	For applications where movement will be exhibited i.e. construction joints, the minimum joint dimensions should be 6mm x 6mm with the maximum dimensions being 25mm wide by 12mm deep. Where deeper joints are found, depth can be reduced using a suitable backer rod. Areas of perimeter pointing where a fillet is to be applied, the minimum measurement across must be 10mm with a minimum depth of 6mm. To consolidate the bond, ensure conditions are suitable for application and joints are properly prepared. Apply sealant firmly into the joint using an application gun along all interfaces of board with a min 2mm bead. Ensure a good solid fill is achieved. Once applied, sealant can be tooled within 5 minutes to required finish.

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