FireFend™ Fire Resistant Silicone Sealant

PRODUCT DESCRIPTION

FireFend™ FR Silicone Sealant is a one-part silicone sealant formulated to provide a high degree of fire resistance in a variety of joint configurations. It has been independently tested and achieves in certain joint configurations an integrity and insulation value in excess of 4 hours.
It 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. It 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.

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.

LIMITATIONS

Silicone sealants generally should not be used in situations where abrasion from pedestrian or vehicular traffic may be encountered, or for submerged joints in porous substrates, which may permit water to reach the bond interface.
Do not use for applications subject to contact with food products.
Do not use in the manufacture of aquariums or for sealing swimming pools.
Always check to determine suitability of the sealant on any surface that may give cause for concern.

TECHNICAL DETAILS

Specific Gravity:	1.25 – 1.30
Skinning time:	5/10 minutes approx. (at 23ºC and 50% relative humidity).
Tack Free Time:	25 minutes approx. (at 23ºC and 50% relative humidity).
Full Cure:	Approx 2-3mm per 24Hrs (at 23ºC and 50% relative humidity).
Shore A hardness:	20 - 28
Extrudability g/min:	55 (standard NMRPS 495A 3mm/3 bars)
Movement accommodation:	25% (BS EN ISO 11600)

Mechanical Properties on a 2mm thick film (NFT 46002)

Modulus at 100% elongation:	0.37 Mpa
Elongation at break:	550%
Tensile strength:	1.5 Mpa

Mechanical Properties on glass slabs (EN 28339)

Modulus at 100% elongation:	0.32 Mpa
Elongation at break:	260%
Tensile strength:	0.55 Mpa

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Application Temp Range:	+5ºC to +40ºC.
Service Temp Range:	-30ºC to +150ºC.
Slump Resistance:	Excellent. May be used in joints up to 25mm wide and 12mm deep.
Shelf Life:	Up to 9 months when stored in unopened cartridges under cool, dry conditions.
Life Expectancy:	When used and applied correctly the sealant will perform in excess of 20 years.
Chemical Resistance:	The cured sealant is unaffected by water, dilute acids and alkalis, soap and household detergents. Certain solvents may soften and swell the cured rubber on prolonged contact.

STANDARDS

Meets ISO 11600 standard with the classification – ISO 11600-F&G-25LM.
Tested to BS EN 1366 part 4 at Warrington. Copy of report available on request.

APPLICATION INSTRUCTIONS

It is important to remember that correct application of the sealant is key to achieving the level of fire resistance commensurate with the test data.
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. For applications where increased movement will be exhibited i.e. construction joints of C-board, the minimum joint dimensions should be 6mm x 6mm. For application where minimal movement will be exhibited, i.e. construction joints of G-board, the minimum joint dimensions should be 2-3mm x 6mm. For both boards the maximum dimensions should not exceed 25mm wide by 12.5mm 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. If conditions are suitable for application, ensure joints are properly prepared and apply sealant firmly into the joint using an application gun. Ensure a good solid fill is achieved. Once applied, sealant can be tooled within 5 minutes to required finish.

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.

STORAGE

Store in dry conditions between 5ºC and 25ºC.

HEALTH AND SAFETY

Consult Health and Safety Data Sheet.
Avoid contact of uncured sealant with the skin. If uncured sealant comes into contact with eyes, flush out immediately with clean water for at least 5 minutes. Consult medical advice if irritation persists. Use in a well ventilated area. As with all chemical products, care should be taken during use and storage. Do not eat or drink while using the product. Keep away from children and animals.

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