

Promat PROMASEAL® Silicone Sealant

INTRODUCTION

Promat PROMASEAL® Silicone Sealant is a silicone-based fire protection sealant, supplied in 310ml cartridges. Adhesion is excellent to most types of surface. The sealants cure in air to form a non-hardening, tack-free seal, preventing the passage of smoke, toxic gases and fire.

FIRE PERFORMANCE

The fire performance of Promat PROMASEAL® Silicone Sealants will vary according to the particular application, the surrounding substrates, the depth of sealant applied and the amount of sealant exposed to heat.

Promat PROMASEAL® Sealants have been tested to the procedures and adopting the criteria of BS 476: Part 20: 1987. Please note that if the fire risk is from both sides of the gap, then the systems as described should be installed on both sides.

ADVANTAGES of Promat PROMASEAL® Silicone Sealant

- Good movement capability
- Tack-free
- Fire tested up to 240 minutes (integrity)
- Will not slump
- Suitable for internal and external applications
- Suitable for joints up to 30mm wide
- Flexible
- Good adhesion to most building products
- Halogen free

PAINTING

Promat PROMASEAL® Silicone Sealant should not be used for food-grade applications and should not be in contact with acids, oxidising agents or with materials that can exude certain components over a period of time. Promat PROMASEAL® Silicone Sealant cannot be overpainted.

INSTALLATION

Promat PROMASEAL® Sealants will adhere to most construction materials. If in doubt, the sealant should be applied to a small length of joint and examined, or the Promat Technical Services Department should be contacted. Promat PROMASEAL® Silicone Sealant cannot be overpainted.

All surfaces should be clean, dry, oil and grease-free, although very porous surfaces may need to be wetted with clean water to prevent too rapid drying of the sealant before proper cure. Surfaces should also be free of dust and friable particles. Any loose paint should be removed from steel. It is advisable to tool the sealant firmly against the joint faces and the sealant can be dressed off with a wetted trowel.

QUANTITY REQUIRED

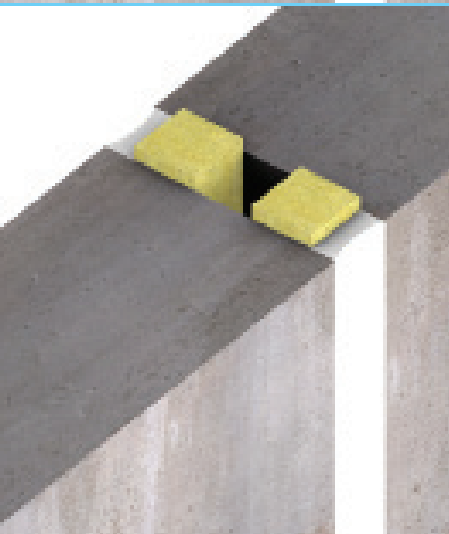
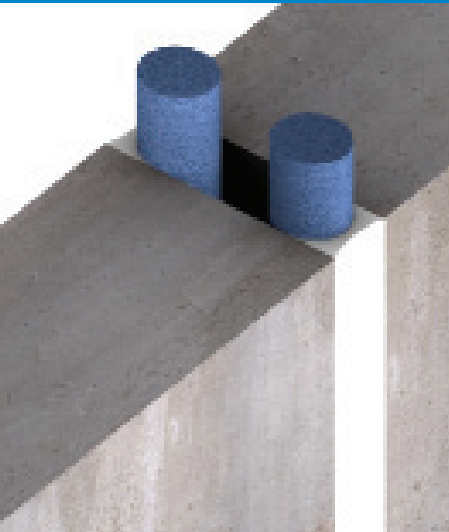
Promat PROMASEAL® Sealants are packaged in 310ml cartridges. To calculate the approximate number of cartridges required, use the following formula:

$$\text{No. of cartridges required} = \frac{\text{Joint length (m)} \times \text{joint width (mm)} \times \text{sealant depth (mm)}}{310}$$

This does not allow for wastage. Please note that joint length is in metres (m) but joint width and sealant depth are in millimetres (mm).

APPLICATIONS

Promat PROMASEAL® Silicone Sealant is suitable for sealing small gaps and holes in applications requiring up to 240 minutes fire resistance. Promat PROMASEAL® Silicone Sealant would be required for service temperatures over 70°C or where increased joint movement capability is needed.



NOTE: If the fire risk is from both sides of the gap, then the sealant should be installed on both sides.

Property	PROMASEAL® Silicone Sealant	Property	PROMASEAL® Silicone Sealant
Sealant base	Silicone	Service temperature range	-30 to +150°C
Cure system	Oxime	Joint movement capability	± 25%
Speed of Cure (23°C, 50% RH)	4mm/day approx. 10mm/6 days approx.	Slump	Nil at joints up to 28mm
Skin over time (23°C, 50%RH)	Minimum 15 minutes	Elongation at break	250%
Overpaint times	N/A	Expansion in fire conditions	N/A
Application temperature range	+5 to +30°C	Shelf life when stored between 5°C to 30°C	12 months



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Certifire Approval No CF 424

Promat PROMASEAL® Silicone Sealant - Approval Matrix

Wall and Floor Installations					
Product Name		Promat PROMASEAL® Silicone Sealant			
Configuration	Maximum Joint Width (mm)	Minimum Seal Depth (mm)	Seal position	Integrity (mins)	Insulation (mins)
Concrete or masonry or steel to timber gap surfaces, 125mm thick	30	22	Single or double sided seal, exposed or unexposed face	30	30
		44		60	60
Concrete or masonry to steel gap surfaces	30	30	Double-sided seal (two 15mm deep beads)	240	240
Concrete or masonry gap surfaces, 125mm thick	10	5	Single sided seal on the exposed or unexposed face	240	0
	20	10		240	0
	30	15		240	0
Concrete or masonry gap surfaces at least 100mm thick	10	5	Exposed	30	30
		5	Unexposed	30	30
		5+7	Both	90	90
		7+7	Both	120	120
	20	10	Exposed	30	30
		10	Unexposed	30	30
		10+10	Both	90	90
		12+12	Both	120	120
	30	18	Exposed	30	30
		15	Unexposed	30	30
		15+15	Both	120	120
	Concrete or masonry gap surfaces at least 125mm thick	10	5	Unexposed	120
5+5			Both	180	180
20		10	Unexposed	90	90
		10+10	Both	120	120
		12+12	Both	120	120
30		15	Unexposed	30	30
		17	Unexposed	30	30
		15+15	Both	120	120
	18+18	Both	180	180	
Concrete or masonry gap surfaces at least 215mm thick	10	5	Unexposed	240	240
		5+5	Both	240	240
	20	10	Unexposed	120	120
		10+10	Both	240	240
	30	15	Unexposed	120	120
		15+15	Both	240	240

Application Technique: For good adhesion the surfaces of the building element shall be free of any dust or grease and be suitably primed.

The concrete floors and/or masonry or concrete walls must be at least 100mm thick and have at least the same fire rating as that required for the penetration seal. Masonry and concrete gap faces must be within the density range of 450 to 2300kg/m³ and gap faces will be free from loose or flaking material. Steel gap faces will be in material at least 6mm thick and will be free from dirt, loose rust, grease and other coatings. The steel member will remain free from significant deflection or thermal movement that increases the original gap width by more than 10% when exposed to standardised fire test conditions.



Promat Fire Protection

Suite 1805, 18th Floor, Dubai Festival City Tower, P. O. Box 123945, Dubai, United Arab Emirates

Tel: +971 (4) 232 9780 Fax: +971 (4) 232 9781

www.promatfp.ae

HEALTH AND SAFETY

A safety data sheet is available from the Promat Technical Services Department and, as with any other materials, should be read before working with the product. The product is not classified as a dangerous substance and so no special provisions are required regarding the carriage and disposal of the product to landfill. This can be placed in an on-site skip with other general building waste which should be disposed of by a registered contractor.

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