Sealproof

Low Modulus Alkoxy Silicone Sealant / Adhesive



Description

SA Sealproof Silicone Sealant is a one-part, low modulus alkoxy silicone sealant for use in most common weatherproofing applications. SA Sealproof is unaffected by normal weathering conditions such as sunlight, ultraviolet radiation, rain, snow and temperature extremes. Its weather-ability enables it to retain its properties after years of exposure. SA Sealproof is compatible with laminated glass, insulating glass units and enables primer-less adhesion to acrylic, polycarbonate and many other plastic substrates.

Key performance Properties

- One Part Ready To Use
- Low Modulus
- High Joint Movement +- 50%
- Outstanding Weatherability
- Excellent Primer-Less Adhesion
- Excellent UV Resistance
- 5 Star VOC Compliant

Applications

SA Sealproof is designed for use in glazing applications such as in-shop and filed glazing of curtain wall modules where glass lights are attached to the metal framing system with structural sealant. SA Sealproof may also be used to seal assemblies of metals, masonry, concrete, coated surfaces, plastics, wood and other common construction materials. SA Sealproof is specially designed for use in butt joints or lap shear joints in weatherproofing and glazing applications subject to movement. The low-modulus characteristic reduces strain on the substrate surface and elastomeric quality allows excellent recovery from extension and compression cycling. SA Sealproof may be factory or field applied to glass, metal and plastics in glazing and curtain-wall assemblies to produce a primary or secondary seal against water, air and dust penetration.

Specifications

Typical data values should not be used as specifications. Please contact Sealants Australasia for further information. A thin bead of sealant will tolerate more movement than a thick bead. Joint width and depth should be no less than 4 mm. Maximum joint widths should not exceed 25mm. Joint depths should be half the width, with a maximum depth of 10mm. Polyethylene closed cell foam rod is the recommend backing material to provide the correct depth of joint. If the joint is too shallow, use a polyethylene tape bond breaker. Do not allow the silicone sealant to contact the back of the joint or any staining materials. SA Sealproof has a primer-less adhesion characteristics to many common construction materials. However, some materials such as concrete, mill finish aluminium, galvanized steel and other materials with variable surface characteristics often require priming. In view of unpredictable surface characteristics, trial application should be made to check adhesion to the specific materials to be used on the project.

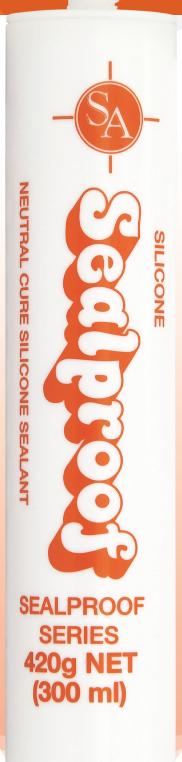
Sealants Australasia Pty Ltd

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Typical Properties		
As Supplied	Value	Test Method
Shore A Hardness	25	ASTM C661
Ultimate Tensile Strength	340 psi (2.3 MPa)	ASTM D412
Ultimate Elongation	715%	ASTM D412
Tensile at 50% Elongation	41 psi (0.29 MPa)	ASTM C1135
Tensile at Max Elongation	141 psi (0.98 MPa)	ASTM C1135
Specific Gravity	1.40	
Application rate	2.3 seconds	ASTM C603
sag/Slump	2.5 mm max	ASTM C639
Peel Strength Aluminium-Glass (21 day cure) 21°C (70°F) 50% R.H.	55 ppi (9.6 kN/m)	ASTM C794
Joint Movement Capability	±50%	ASTM C719
Ozone and U.V. Resistance	Excellent	ASTM C793
Staining on Concrete	None	ASTM C510
Tack Free Time	2 hours	ASTM C679
Cure Time (9mm deep) at 21°C (70°F) 50% R.H.	10-14 days	
Tooling Time	30 minutes	
Application Temperature Range ¹	+4 to 49°C	ADCT ³ -01
Performance Range ²	-48 to 149°C	ADCT ³ -13A
Colours	Black / White / Grey	

Adhesion Characteristics

SA Sealproof Silicone Sealant was used to adhere wire screening to a variety of common construction surfaces using the adhesion in peel configuration. After 21 days of 23°C (75°F) /50% RH followed by 7 days immersion in water the adhesive bonds are tested in a 180 peel-back test using a jaw separation speed of 2" per minute. The actual results are given in pounds force per inch of peel strength and percent cohesive failure.

21 Days 23°C/59% RH lbs. f/in. Cohesion% (kN/m)	21 Days 23°C/50% RH and 7 days water immersion lbs. f/in. Cohesion % (kN/m)
57 (10.0) 100	33 (5.8) 60
58 (10.2) 100	45 (7.9) 75
65 (11.4) 100	56 (9.8) 100
61 (10.7) 100	33 (5.8) 50
70 (12.3) 100	62 (10.9) 100
63 (11.0) 100	50 (8.8) 100
62 (10.9) 100	57 (10.0) 100
62 (10.9) 100	46 (8.1) 100
63 (11.0) 100	32 (5.6) 60
60 (10.5) 100	54 (9.5) 100
50 (8.8) 100	40 (7.0) 100
	RH lbs. f/in. Cohesion% (kN/m) 57 (10.0) 100 58 (10.2) 100 65 (11.4) 100 61 (10.7) 100 70 (12.3) 100 63 (11.0) 100 62 (10.9) 100 63 (11.0) 100 63 (11.0) 100 60 (10.5) 100



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Application

Cut nozzle at 45 Degree angle to desired bead width, and apply to substrate with sealant gun and tool within 20-30 minutes. Uncured sealant can be cleaned up with mineral turpentine. Some surfaces may need a primer. If so, allow primer to dry before applying sealant. Use approved backing material for joints over 10mm deep. For a neat appearance to the joint, use masking tape. Always remove masking tape before sealant has skinned over.

Surface preparation

Surfaces must be clean, dry and free of dirt, grease, oil, rust and water. Use primer (Where Required) White spirits or mechanical cleaning with a lint free cloth. Do not use soap or detergent. For plastics, contact Sealants Australasia for a recommended cleaning solvent. When used on remedial work all existing sealant must be removed prior to application of new material.

Packaging

420gm Cartridges - Available in cartons of 20. Product Packed in Australia.

Storage/Shelf life

The shelf life of **SA Sealproof Silicone Sealant** is 12 months if stored in a cool dry place. The storage temperature should not exceed 25°C as this will decrease shelf life.

Health and safety

Avoid contact with skin, eyes and mouth. If in eyes, immediately flush with water for 15 minutes. If irritation persists seek medical attention. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been removed from fingertips and nails. Residual sealant may remain on fingers for several days and transfer to lenses and cause eye irritation. Avoid contact with skin and clothing. MSDS available on request. **KEEP OUT OF REACH OF CHILDREN.**

Fire Hazard Classification

SA Sealproof weatherproofing silicone sealant has been tested according to Underwriters Labroratories, Inc, U.L. 723 Test for surface Burning Characteristics and ASTM E814 Vertical Fire Endurance Test. Contact Sealants Australasia for details.

Limitations

SA Sealproof is not recommended for use in locations subject to continuous water immersion, unpredictably absorptive surfaces such as marble or limestone, or totally confined spaces, as the sealant requires atmospheric moisture for completion of cure and generation of properties. SA Sealproof cannot be painted over.

Sealant Volume Calculator

Number of 420gm Cartridges = Joint Width (mm) x Joint depth (mm) x Joint length (m) x 1.15* ÷ 292

* Please note: 1.15 Allows for 15% wastage. Joints are assumed rectangular



Available From:

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PLEASE NOTE: Information contained and recommendations made herein apply to SA products alone. Such are based on research and data from other reliable sources and are believed at the time of print to be accurate. It is the purchaser's responsibility before using any product, to verify this data under their own operating conditions to determine if such product is suitable for their purposes.

