



## GSA ALL PURPOSE SILICONE

### DESCRIPTION:

GSA ALL PURPOSE SILICONE is a one-part, neutral cure, high quality silicone sealant designed for multi-purpose weatherproof and waterproofing applications. It has exceptional gun ability even in extreme weather conditions and cures at room temperature by reaction with moisture in the air to produce a durable and flexible silicone rubber. It has excellent primeless adhesion to most construction materials.

### FEATURES:

- Easy application with standard caulking guns.
- Neutral Cure – non-corrosive to sensitive substrates and suitable for uses on many non-porous, porous & alkaline substrates.
- Good adhesion – on curing will form a strong bond to most common building components without the use of primer; including typical substrates such as steel, glass, anodized aluminium, PVF2 coated surfaces and concrete.
- Good weatherability and virtually unaffected by sunlight (UV), wind, frost, rain, snow, ozone, or temperature extremes.

It is a chemically stable, one part, ready to use material which has a consistency that remains uniform over a wide range of temperatures -20°C to +50°C. This allows and facilitates the sealant installation to be applied easily at most working temperatures.

Cured sealant will not harden in cold climate or soften at high heat conditions, the service temperature range is from -40°C to +150°C. It will not become brittle, tear or crack, and stays flexible indefinitely.

### TYPICAL APPLICATIONS:

GSA All Purpose Silicone is designed for sealing non-structural curtain wall joints, facade joints and system, EIFS, panels and metal cladding, expansion and movement joints, windows and perimeter joints. The product can be used for both new projects and remedial works.

The sealant forms a durable, elastomeric, weather-tight and water-tight bond with most building materials in any combination, in particular; glass, ceramics and porcelains, stones (granite/ marble/ sandstone/ slate), masonry surfaces, tiles, wood, steel, anodized aluminium and painted surface. Primer is not required in most cases. It can be used for roofing construction materials such as galvanized and zinc-coated steel, aluminium and some plastics.

### KEY PERFORMANCE PROPERTIES:

- Silicone Sealant (Neutral Cure)
- One part ready to use
- Fast Curing
- Outstanding weather ability
- UV & Weather resistant
- Excellent Adhesion
- Easy application

### COLOURS:

Translucent, White, Grey, Black

### PACKAGING:

300ml recyclable plastic cartridge.



# TECHNICAL DATA SHEET



## GSA ALL PURPOSE SILICONE

**LIMITATIONS:** NOT RECOMMENDED FOR USE IN STRUCTURAL GLAZING

GSA All purpose silicone **SHOULD NOT** be applied

- To building materials that bleed oils, plasticizers or solvents.
- To a frost-laden or wet surface; surface that is oily, greasy, wet, dirty or unsound.

- When surface temperatures exceed +50°C or in totally confined spaces.
- In sub-graded applications or joints that will be subject to continuous immersion in water.
- Where painting or post finishing of the sealant surface is required.

The suitability of this product, for each intended use or application must be determined by the purchaser prior to acceptance.

### TYPICAL PROPERTIES

AS SUPPLIED: TESTED AT 23°C & 50% RH			RESULTS	
TEST METHOD	TEST PARAMETER	UNIT	TRANSLUCENT	PIGMENT
CTM101	SPECIFIC GRAVITY	G/ML	0.96	1.42
ISO 7390	FLOW (SAG OR SLUMP)	MM	0	0
ASTM C603	EXTRUSTION RATE	ML/MINUTE	270	102
CTM004	WORKING TIME	MINUTE	3	25
CTM001	TACK FREE TIME	MINUTE	7	30
CTM003	CURING SPEED (AVERAGE)	MM/24HRS	3	3
AS CURED: AFTER 21 DAYS AT 23°C & 50% RH			RESULTS	
ASTM C661	DUROMETER HARDNESS SHORE A	POINTS	20	40
ISO 9047	MOVEMENT CAPABILITY	%	± 20	± 20
ISO 8339	TENSILE/ MODULUS AT 50% ELONGATION	MPA	0.23	0.34
	TENSIL MODULUS AT 100% ELONGATION	MPA	0.3	0.4
	ULTIMATE TENSILE STRENGTH	MPA	0.36	0.48
	ULTIMATE ELONGATION AT BREAK	%	320	420

ASTM - AMERICAN SOCIETY FOR TESTING & MATERIALS    CTM - CORPORATE TEST METHODS    ISO - INTERNATIONAL STANDARDISATION ORGANISATION

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**GOOD PRACTICE IN A WEATHERSEAL JOINT:** A thin bead of silicone rubber will accommodate more movement than a thick bead. For all movements where excessive movement is expected, the bead thickness of GSA ALL PURPOSE SILICONE should be no thicker than 12mm and no thinner than 6mm. Ideally the ratio of joint width to depth should be about 2:1.

A good general practice is that the designed joint width must be at least twice the total anticipated joint movement and should be four times the anticipated movement due to the construction tolerances and material variations.

Joints should be designed to allow for installation and retention of non-gassing backing material during the application and curing of GSA ALL PURPOSE SILICONE.

Small movement building joints should allow for a minimum joint width of 6mm. When larger joint movement is expected the joint width should be based on the calculated joint movement.

Plastic panels usually require a larger than usual joint dimensions due to the high coefficient of thermal expansion of plastics. A primer may be required on a plastic surface.

### INSTALLATION

**SURFACE PREPARATION:** Clean all joints, glazing pockets, remove all debris, foreign substance and other contaminants such as oil, grease, dust, water, frost, surface dirt, old sealants or glazing compounds from the surface where the sealant is to be applied. Metal, plastic, glass and non-porous surface should be cleaned with appropriate solvent using two cloth cleaning method. In all cases solvent should be wiped on and removed with separate clean white lint-free cloth. Detergent or soap water treatments are not recommended.

Test compatibility for porous substrates

### **MASKING:**

Areas adjacent to joints to be sealed may be masked to give neat sealant lines and prevent substrate contamination. Tooling should be completed in one continuous stroke immediately after sealant application and before a skin forms. Masking product should be removed immediately after tooling.

### **PRIMING:**

Primer is generally not required for GSA ALL PURPOSE SILICONE for glass substrates. However, if the use of primer is required, a proprietary primer should be applied to the surface using a clean lint-free cloth and allow to thoroughly dry prior to application of silicone. Do not use brush or spray applications and avoid heavy applications of primer. This may cause an adverse effect on the adhesion to the substrate. Adhesion tests are recommended to establish the need of a primer.

### **BACKING MATERIALS:**

Non-gassing & non-absorbing foam rod are recommended backing materials for most joints; use polyethylene tape for shallow joints. Backing materials or Bond Breaker Tapes will prevent the sealant from three-side bonding and allow the rubber to stretch freely, use compatible backing materials and setting blocks.

### **APPLICATION:**

Install backing material or joint filler, setting blocks, spacer shims and tapes as specified. Apply Silicone in a continuous operation using a positive pressure adequate to properly fill and seal the joint. Tool the silicone with light pressure to spread the sealant against backing material and the joint surface before a skin forms. A tool with the convex profile is recommended to keep the sealant within the joint. Do not use soap or water as a tooling aid. Remove masking tape as soon as the bead is tooled. In glazing, tool the sealant applied at the sill (at straight edge splayed angle) so that precipitation and cleaning solutions will not pond.

### **Storage and shelf life**

When stored in original unopened container at or below +25°C All Purpose Silicone has a shelf life of 12 months from date of production or as indicated on the packing. Store in a shaded, cool and dry area.

### **Handling and Safety Information**

Before handling, read product and safety data sheets for safe use and health hazard information.

### **First Aid**

Please refer to the Safety Data Sheet which is available at [www.cwbrands.com.au](http://www.cwbrands.com.au)



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### Disclaimer

CW Brands Pty Ltd believes that the information in this technical data sheet is an accurate description of the typical uses of the product. The data and statements are based on our research and development work and is to the best of our knowledge true and accurate. The user must ensure of the product(s) in their application prior to use in particular to determine its performance, efficiency and safety. The use of this product is beyond the manufacturer's control, and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. Products conform solely to the information contained in this and other related CW Brands Pty Ltd publications.

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