



Strong, lightweight structural
adhesives for whatever you're
putting together...

TECHNICAL DATA SHEET

SG900

LOW VOC SOLID SURFACE ADHESIVES

DESCRIPTION

SCIGRIP® SG900 is a two-part, color matched Methacrylate adhesive designed for joining and seaming solid surfaces. SG900 adhesive is formulated with the latest technology for the surfacing industry and offers excellent bonding to a variety of solid surface substrates including acrylics, engineered stone, cultured marble, glass reinforced plastics, polyesters and polyester blended materials. SG900 has high resistance to water, scuffing and high temperatures and also possesses greater toughness and impact resistance than most other solid surface adhesives in the market. SG900 adhesive is available in 250 ml cartridges.

Fabricators will benefit from the environmental conformance properties of SG900 adhesives as well. It is manufactured to the highest standard available and faces stringent quality control tests prior to sale and distribution.

PERFORMANCE BENEFITS

• UV resistant	• Excellent water resistance
• Room temperature cure	• Excellent scuff resistance
• Minimum surface preparation	• Excellent impact resistance

TYPICAL ADHESIVE CHARACTERISTICS @ 75°F (24°C)

Characteristics	Part A (Adhesive)	Part B (Activator)	Mix (Part A + B)
Color	Multiple	Clear	Multiple
Mix ratio by volume	10	1	—
Mix ratio by weight	8.94	1	—
Viscosity, cps	25,000 – 35,000	1,500 – 2,500	—
Density, g/ml	1.05	1.18	1.06
Unit weight, lb/gallon	8.75	9.79	8.84

TYPICAL PHYSICAL PROPERTIES @ 75°F (24°C)

Tensile Strength ¹ psi (MPa)	5,000 – 7,200 (34 – 50)	Butt Joint Tensile psi (MPa)	2,000 – 2,500 (14 – 17)
Flexural Strength ² psi (MPa)	4,000 – 5,200 (28 – 36)	Hardness Shore D Scale ³	50 – 60

RECOMMENDED SUBSTRATES

✓ Acrylic Solid Surface Sheet	✓ Engineered Stone	✓ Cultured Marble
✓ Glass Reinforced Plastics	✓ Gel Coats	✓ Polyester Sheet

PRODUCT PROPERTIES @ 75°F (24°C) – Fixture Time (time to achieve 200 psi or 1.4 MPa strength in lap shear)⁴

Cartridge	Adhesive / Activator	Working Time (minutes)	Fixture Time (minutes)
SG900	SG900 A / SG900 B	12 – 20	>16

SERVICE TEMPERATURES -40°F to 180°F (-40°C to 82°C)

NOTES:

1. Based on ASTM D638 method.
2. Based on ASTM D790 method.
3. Based on ASTM D2583 method.



SAFETY AND HANDLING

Read Material Safety Data Sheet before handling or using this product. Adhesive components contain methyl methacrylate monomer and are flammable. Always use in a well-ventilated area. Floor-level extraction and large quantities of moving air greatly facilitate ventilation. Both materials must be stored in a cool place away from sources of heat and open flames or sparks. Keep containers closed when not in use. Prevent contact with skin and eyes. In case of skin contact, wash with soap and water. In case of eye contact, flush with water for 15 minutes and seek immediate medical attention. Harmful if swallowed. Keep out of reach of children.

MIXING AND APPLICATION

EXOTHERM: The chemical curing reaction that occurs when components A and B are mixed generates heat. The amount of heat generated is dependent on the mass and thickness of the mixed product. Large masses over 1.5 inch (39 mm) thick can develop heat in excess of 250°F (121°C) and can generate vapors that should be avoided from direct personal contact.

WORKING TIME

The working time information is provided as an estimate of the time between mixing and set up of the adhesive. The working time is affected by the mixing ratio, air temperature, adhesive temperature, and the substrate temperature as well as the shelf life of the adhesive. For best results, use the adhesive at temperatures between 65°F and 85°F (15°C and 30°C). High temperatures increase speed of cure whereas lower temperatures retard the cure.

CURING

Open working time is the approximate time after mixing components A and B, depending on bonding conditions, that the adhesive remains fluid and bondable. Fixture time is the approximate time after mixing components A and B required for the adhesive to react the partial state of cure necessary to allow careful movement, unclamping or de-molding of assembled parts. Parts can generally be put in service when 80 percent of full strength is developed. The time to achieve 80% cure is approximately 2-3 times that required for fixturing. The working and fixture times presented in this bulletin are based on laboratory tests performed at 75°F (24°C). Higher temperatures speed the curing reaction and reduce working time. The reverse is true for lower temperatures. If significant variation in temperatures or application at very high or low temperatures is anticipated, contact your SCIGRIP representative for technical assistance.

DISPENSING EQUIPMENT

Dispensing directly from disposable dual component cartridges requires the use of specialized dispensing guns and static mixing tips. While using pneumatic dispensing guns, it is mandatory to use the gun's regulator to regulate the air pressure. Removal of the regulator from the dispensing unit can lead to over pressurizing and rupture of the cartridge cylinder. Contact your SCIGRIP representative for information and availability of dispensing equipment.

APPLICATION

Follow instructions provided or contact your SCIGRIP representative for proper preparation of dispensing equipment and substrates prior to starting the bonding process. Always dispense a quantity of adhesive at start-up to assure that the adhesive exiting the tip of the mixer is the proper color and is uniform, without streaks. If aged material is being used, allow the purged material to cure to assure quality before proceeding. Carefully dispense a sufficient quantity of adhesive on the substrate to assure that the bond gap is completely filled when the parts are mated. Allow for squeeze-out at the edges of the bond to assure filling. Carefully secure or clamp parts to prevent joint movement while the adhesive sets. Do not apply excessive pressure that can cause excessively thin gaps and starve the bond line. A minimum gap of 0.02 inch (0.50 mm) is recommended. If in doubt, use shims or spacers to set the gap. Test the curing adhesive at the edges for fingernail hardness before removing clamps or fixtures. Use a soft faring tool to remove excess adhesive from the bonded assembly. Masking tapes or other

protective barriers should be used to prevent contamination on any cosmetically sensitive areas. Partially cured adhesive can be removed with a sharp knife and any cured adhesive may be removed by sanding or scraping.

CLEAN UP

Adhesive components and mixed adhesive should be removed from mixing and application equipment with a suitable industrial solvent or cleaner before the mixed adhesive cures. Once the adhesive cures, soaking in a strong solvent or paint remover will be required to soften the adhesive for removal. If the bonds are exposed to UV rays then use of plasticizers is recommended, or contact your SCIGRIP representative for additional information. Any clean-up of the bonded assembly with industrial solvents is not recommended as it could affect the cure.

STORAGE AND SHELF LIFE

The shelf life of components A and B in unopened containers is approximately 18 months from the date the product is shipped from SCIGRIP facilities. Shelf life is based on steady state storage between 55°F and 80°F (13°C and 27°C). Exposure, intermittent or prolonged, above 80°F (27°C) will result in a reduction of the stated shelf life. Exposures above 100°F (38°C) during shipping or storage can quickly degrade component B in cartridges or bulk containers, and must be prevented. Shelf life of both components can be extended by air-conditioned or refrigerated storage between 50°F and 65°F (10°C and 18°C) *however freezing should be prevented.*

IMPORTANT NOTES

- SUBSTRATE AND APPLICATION COMPATIBILITY.** The user must determine the suitability of a selected adhesive for a given substrate and application. SCIGRIP strongly recommends laboratory, shop and end-use testing that simulates the actual manufacturing and end-use environment.
- SURFACE PREPARATION:** The need for surface preparation must be determined by comparative testing of prepared and unprepared substrates to assure that unprepared bonding is equivalent to or acceptable for the application relative to prepared bonding. Initial bonding tests must be followed up with simulated or actual durability tests to assure that surface conditions do not lead to degradation of the bond over time under service conditions. Subsequent changes in substrates or bonding conditions will require re-testing.
- TECHNICAL ASSISTANCE:** Contact your SCIGRIP representative for questions or assistance with the selection of adhesives and methods for evaluating adhesives for your intended application.

NOTE: *This product is intended for use by skilled individuals at their own risk. Recommendations contained herein are based on information we believe to be reliable. The properties and strength values presented above are typical properties obtained under controlled conditions at the SCIGRIP laboratory. They are intended to be used only as a guide for selection for end-use evaluation. The ultimate suitability for any intended application must be verified by the end user under anticipated test conditions. Since specific use, materials and product handling are not controlled by SCIGRIP, our warranty is limited to the replacement of defective SCIGRIP products.*

Limited Warranty: Seller warrants to the original Buyer of the goods that all new Seller goods shall be free from defects in material and workmanship for the published shelf life of the good. If any Seller good fails to conform to this Limited Warranty under normal use and storage conditions, and if the original Buyer complies with the terms of this Limited Warranty, then Seller will, without charge to Buyer, replace the nonconforming good.

This Limited Warranty shall not extend to, nor shall Seller be responsible for, damages or loss resulting from accident, misuse, negligent use, improper storage, or improper application.

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