



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

## SG350L: Two-Component, Fast Curing, Toughened Structural Adhesive with High Elongation

Formulated for primerless adhesion to substrates commonly used in the commercial vehicle industry



SCIGRIP® SG350L Series is designed for mixed material bonding applications with stringent aging resistance requirements. The ratio between open time and fixture time is advantageous as compared to other methyl methacrylate systems.

This product does not boil at larger bonding gaps, you can gap fill until 100mm without boiling. This means it is well suited for repair or backfill of large composite structures.

### Performance Benefits

FEATURE	BENEFIT
Variable working times (5 to 15 mins)	Selection to fit application/process requirements
Primerless Metal Bonding	No surface prep needed on most metals <sup>1</sup>
Environmental resistance	Permanent bonds in harsh environments
No-sag application characteristics	Stays put with reduced slide or sag even on inverted surfaces
Reduced bond line read through	Reduces post finishing requirements
Permanent strength and elasticity	Excellent fatigue, impact, and shock load resistance

### Additional Resources

- Technical questions? Use the [Ask SCIGRIP](#) feature at scigrip.com
- Try our [Substrate Match Tool](#) at scigrip.com
- Request more information and [schedule a demo](#) at scigrip.com
- [Find a distributor](#) at scigrip.com/scigrip-us-distributors

#### NOTES:

- Prepare metal for bonding by removing all dust, loose scale, rust and other surface residue including oil and grease. For maximum bond strength on steel, abrade the mating surface prior to bonding. See notes a, b on reverse side. Value will depend on strength and stiffness of substrate.
- Polyolefins, thermoplastic polyesters, fluorocarbon plastics and other low surface energy plastics are generally not bondable.
- Lap shear strength of UNPRIMED aluminium to aluminium based on ASTM D1002 method.
- Brookfield Spindle 7, 20rpm (23C)
- Tensile strength, modulus and elongation based on ASTM D638, Type IV
- Tensile modulus as measured in the linear portion of the stress strain curve.



IPS Adhesives 600 Ellis Road, Durham, NC 27703 USA | 877.477.4583 | Fax: 919-598-2439 | ipsadhesives.com  
 IPS Adhesives Europe New York Industrial Park, Newcastle Upon Tyne, UK NE27 0QF | +44 (0) 191-259-0033

#### TECHNICAL DATA SHEET

## SG350L SERIES

METHACRYLATE ADHESIVES

### RECOMMENDED FOR BONDING

Composites	Metals <sup>1</sup>	Thermoplastics <sup>2</sup>
GRP Epoxy	Aluminum	ABS
GRP Polyester	Stainless Steel	ABS/PC
CFRP	Cold Rolled Steel	PVC
Gelcoats		
SMC		

Not recommended for galvanised steel

### PRODUCT PROPERTIES (In Minutes)

Cartridge	Adhesive*	Tack Time	Fixture Time
SG350L-05	SG350LA	4 - 6	14 - 18
SG350L-15	SG350LA	12 - 16	32-38

\*Use activator SG502B

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

SG350L SERIES Uncured	Part A Adhesive	Part B Activator	A+B Mix
Color	Off White	Black or Off White	Black or Tan
Mix ratio/volume	10	1	-
Mix ratio/weight	9.0	1	-
Density, g/cm <sup>3</sup>	TBC	TBC	TBC
Viscosity, cps <sup>4</sup>	TBC	TBC	TBC

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

Tensile Strength <sup>6</sup> (MPa)	17 - 19
Maximum Tensile Elongation <sup>5</sup>	70 -90%
Tensile Modulus <sup>5,6</sup> (MPa)	700 - 1100
Lap Shear Strength <sup>3</sup> (MPa)	18 - 20
Service Temperatures	-40 to 90 °C (-40 to 194 °F)
Shore D Hardness	50 - 60

### PACKAGING & AVAILABILITY

Cartridges  
50 ML

Cartridges  
490 ML





SG350L SERIES

## Safety & Handling

**SAFETY AND HANDLING:** Read Material Safety Data Sheet before handling or using this product. Adhesive component A contains methyl methacrylate monomer and is flammable. Always use in a well-ventilated area. Floor-level extraction and large quantities of moving air greatly facilitate ventilation. Activator component B contains peroxide. 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.

**PRODUCT APPLICATION & USE:** To ensure consistent performance, product temperatures must be held reasonably constant between 15°C (60°F) and 30°C (85°F). Substrate preparation, adhesive/activator ratio, application temperature, humidity and a variety of other environmental and end user application factors are beyond the control of IPS Adhesives; therefore, the end user is solely responsible for determining whether the product is fit for a specific purpose and suitable for the user's product, design and final application requirements.

### APPLICATION

**CARTRIDGE APPLICATION:** Check each cartridge to ensure that the openings are free of obstruction and debris that would prevent flow. Scigrip SG350 series is applied through an 8mm x 18-element helical static mixer. Before bonding, dispense a small amount of material through the static mixer (purge) until the product exiting the mixer appears to be uniformly mixed.

**BULK APPLICATION:** Scigrip SG350L series can be applied using meter-mix dispensing equipment. Contact your SCIGRIP representative for information and availability. When meter-mix dispense systems are used, care must be taken to assure compatibility between the adhesive components and the materials in the equipment that they contact. All wetted metal components should be constructed of stainless steel or aluminium. Contact with copper, zinc, brass or other alloys containing these materials must be strictly prevented. All non-metallic seals and gaskets should be fabricated from PTFE or UHMW polyethylene based materials.

**BONDING PROCESS:** Parts should be mated and in final position before the expiration of the open time and should remain in position, unstressed and undisturbed, until the end of the fixture time has passed.

Use enough adhesive to completely fill the desired bond area, and avoid entrapping air within the joint. Avoid over squeezing the joint causing insufficient material to remain in the bond area once the clamps or jig is removed.

SG350L curing procedures are exothermic reaction. Large masses of material can result in overheating the adhesive and substrate. Consult with Scigrip Technical Service staff.

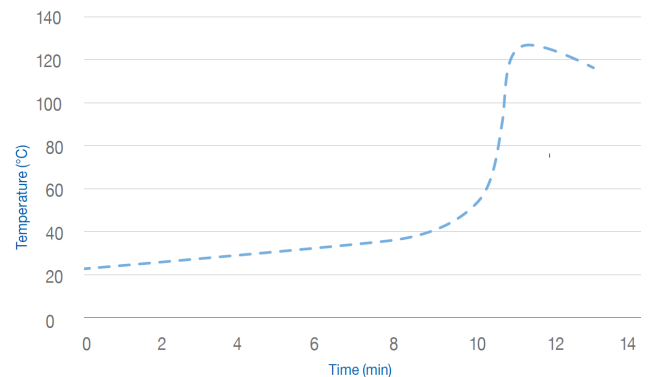
**CURING:** Working time is the approximate time after mixing components A and B that the adhesive remains fluid and bondable. Fixture time is the approximate time after mixing components A and B required for the adhesive to develop sufficient strength to allow careful movement, unclamping or de-molding of assembled parts. 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, which reduces working time and speeds the development of strength. 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. The chemical curing reaction that occurs when components A and B are mixed generate heat. The amount of heat generated is dependent on the mass and thickness of the mixed product.

**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. Contact your SCIGRIP representative for additional information..

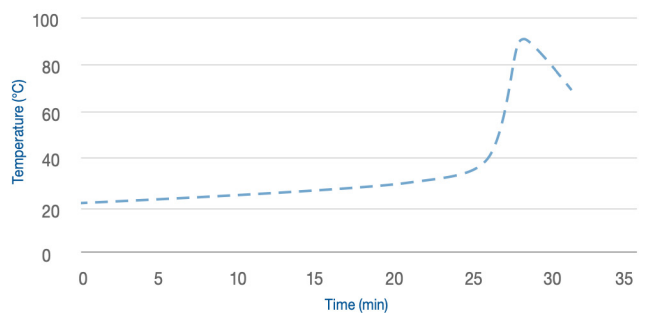
**SHELF LIFE & STORAGE CONDITIONS:** Best results in paste form within 9 months for the adhesive, 6 months for the activator, and 12 months for the cartridges - stored at less than 25°C [77°F] in original packaging. Long-term exposure to elevated temperature can cause material to lose performance characteristics. Prolonged exposure above 37°C [99°F] quickly diminishes the reactivity of the product and should be avoided.

### Working Time vs. Adhesive Temperature

SG350L-05



SG350L-15



### 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.
- 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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IPS Adhesives 600 Ellis Road, Durham, NC 27703 USA | 877.477.4583 | Fax: 919-598-2439 | ipsadhesives.com  
IPS Adhesives Europe New York Industrial Park, Newcastle Upon Tyne, UK NE27 0QF | +44 (0) 191-259-0033