

### SUBSTRATE RECOMMENDATIONS

SCIGRIP® 10 is formulated for large PVC (Polyvinyl Chloride) pipe and fittings, but has been found to bond many other plastics and non plastics. Preliminary tests show good bond strength with PVC (vinyl) – rigid and flexible (with low plasticizer content), ABS, polycarbonate, styrene, acrylics, butyrate, hard rubber and possibly others not yet tested. It does not bond well to Neoprene or other synthetic rubber, Delrin, Celcon and a few other plastics.

### BONDING RECOMMENDATIONS

SCIGRIP 10 is recommended for a variety of applications due to its high strength and versatility as a structural adhesive. It is used in the sign assembly industry for bonding a variety of plastics. It also has many uses in other fabrication industries that bond ABS, acrylic, polycarbonate, PVC and other plastic substrates.

### GENERAL DESCRIPTION

SCIGRIP 10 is a two-component, white, high strength adhesive. It cures by the reaction of base Resin A with Catalyst B.

### TYPICAL BOND STRENGTH<sup>†</sup>

Substrate Material	Aged Bond Strength, lbs/in <sup>2</sup> (kg/cm <sup>2</sup> )		
	2 Hours	24 Hours	1 Week
Acrylic (Cast & Extruded)	2000 (141)	2300 (162)	2700 (190)
PVC	2400 (169)	2900 (204)	3000 (211)
PETG	2000 (141)	2100 (148)	2200 (155)
ABS	1200 (84)	1600 (113)	1800 (127)
Polycarbonate	700 (49)	1700 (120)	2200 (155)

<sup>†</sup>Substrate thickness: 0.25 inch (0.64 cm). Bond area: 1.0 in<sup>2</sup> (6.45 cm<sup>2</sup>)

### ADHESIVE PROPERTIES AND CHARACTERISTICS @ 73°F (23°C)

COLOR:	White	FIXTURE TIME:	1 Hour
VISCOSITY:	40,000 cps ± 10,000 cps	TIME TO REACH 80% OF ULTIMATE BOND STRENGTH:	24 Hours
REACTIVITY:	35 Minutes ± 5	SPECIFIC GRAVITY:	Component A: 1.053 ± 0.004
WORKING TIME:	25 Minutes		Component B: 0.950 ± 0.004

### DIRECTIONS FOR USE

**PREPARATION OF SUBSTRATES:** High gloss hard surfaces including glass, ceramics and thermoset polymerics such as Bakelite® benefit from sanding using a fine grit followed with a tack cloth. The surfaces to be bonded must be degreased, clean and dry for consistent surface adhesion using this product. When a degreasing agent (e.g. chlorinated solvents, MEK, acetone, or isopropyl alcohol) is required, confirm that the substrates will not be damaged during contact with the solvent.

**METHOD (1):** SCIGRIP 10 is packaged in pre-measured kits. When the entire package is to be used, all of Catalyst B may be mixed directly into base Resin A and used at once. The package ratio is 100 parts Resin A to 13 parts Catalyst B by weight, so smaller batches may be made by respecting the same ratio. Once mixed, pot life is about 30 minutes at 70°F (21°C). Cure of an applied thin layer is about 4 hours at 70°F (21°C). Higher strength is reached in 24 to 48 hours. Cure may be accelerated in some applications either by applying heat to the glue line, about 150°F (66°C), or by using additional Catalyst B. Increasing the amount of the Catalyst B from 13% to 25% by weight will substantially decrease both cure time and pot life. This will however decrease the ultimate strength of the bond. If higher strength is more desirable than cure speed, the 100:13 ratio should be respected.

**METHOD (2):** A unique property of SCIGRIP 10 is its ability to cure by simple contact of Resin A with Catalyst B. This means that the user may apply a coat of Resin A to one substrate and a coat of Catalyst B to the other, then assemble the parts ensuring good contact of Resin A with Catalyst B throughout the glue line. Use of this method eliminates pot life limitations. Coat a film of Catalyst B on nonporous substrate. Resin A may be used more generously on the other substrate, porous or nonporous. Where a large gap is to be filled, apply Catalyst B to both surfaces before applying Resin A. For ABS or Styrene, after coating Catalyst B, allow it to dry for about 5 minutes before applying Resin A.

**NOTE:** Individual components, in particular Catalyst B, exhibit lesser adhesive properties than the mixed product. Where METHOD (2) is chosen, care must be taken to ensure that Catalyst B adheres sufficiently to the particular substrate being bonded. In general, METHOD (1) will provide faster cure and higher strength.

## AVAILABILITY

This product is available in gallon (3.785 liters), pint (473 ml) and 1/4 pint (118 ml) plastic containers. For detailed information on containers and applicators, refer to the current Assembly Adhesive Selection Guide and Price List.

## SHELF LIFE

One year in tightly sealed containers stored in a cool 50 – 80°F (10 – 27°C) dry place. Storage near the ceiling in non air-conditioned warehouses is not recommended. Shelf life is reduced at higher temperatures and enhanced at lower temperatures. Keep away from sources of heat, open flame, sparks and sunlight. The date code of manufacture is stamped on the bottom of the container.

## QUALITY ASSURANCE

SCIGRIP 10 is carefully evaluated to assure that consistent high quality is maintained. Fourier transform infrared spectroscopy, gas chromatography, and additional in depth testing ensures each batch is manufactured to exacting standards. A batch identification code is stamped on each can and assures traceability of all materials and processes encountered in manufacturing this plastic cement for its intended specific application.

## SHIPPING

**Shipping Information for One Liter Kit and Above\*:** Proper Shipping Name: Adhesive. Hazard Class: 3. Identification Number: UN 1133. Packing Group: II. Label Required: Flammable Liquid. **For Less than One Liter:** Proper Shipping Name: Consumer Commodity. Hazard Class: ORM-D

\*If components are shipped separately, see MATERIAL SAFETY DATA SHEET for shipping instructions.

## SAFETY AND ENVIRONMENTAL PRECAUTIONS

This product is a flammable, reactive adhesive. It is considered a hazardous material. In conformance with the Federal Hazardous Substance Labeling Act, the following hazards and precautions are given. Purchasers who may re-package this product must also conform to all local, state, and federal labeling, safety and other regulations. VOC emissions do not exceed 75 grams per liter.

### **WARNING! FLAMMABLE. VAPOR HARMFUL. MAY BE HARMFUL IF SWALLOWED. MAY IRRITATE SKIN OR EYES.**

Keep out of reach of children. Do not take internally. Keep away from heat, spark, open flame and other sources of ignition. Keep container closed when not in use. Store away from direct sunlight between 50° – 80°F (10° – 27°C). Use only in adequate ventilation. Avoid breathing of vapors. Atmospheric levels should be maintained below established exposure limit values. See Section II of Material Safety Data Sheet. If airborne concentrations exceed those limits, use of a NIOSH-approved organic vapor cartridge respirator with full face-piece is recommended. The effectiveness of an air-purifying respirator is limited. Use it only for a single short-term exposure. For emergency and other conditions where short-term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus. Do not smoke, eat or drink while working with this product. Avoid contact with skin, eyes and clothing. May cause eye injury. Protective equipment such as gloves, goggles and impervious apron should be used. Carefully read Material Safety Data Sheet and follow all precautions.

Component “A” contains Methyl Methacrylate Monomer (80-62-6). Component “B” contains Methyl Ethyl Ketone (78-93-3) and Benzoyl Peroxide (94-36-0). Do not use this product for other than intended use.

“Title III Section 313 Supplier Notification:” This product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40CFR372. This information must be included in all Material Safety Data Sheets that are copied and distributed for this material.

## FIRST AID

**Inhalation:** If overcome with vapors, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.

**Eye Contact:** Flush with plenty of water for 15 minutes and call a physician.

**Skin Contact:** Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.

**Ingestion:** If swallowed, give 1 or 2 glasses of water or milk. Do not induce vomiting. Contact physician or poison control center immediately.

## IMPORTANT NOTE

This product is intended for use by skilled individuals at their own risk. These suggestions and data are based on information we believe to be reliable. Users should verify by test that this product, as well as these methods, is suited to their application.

## WARRANTY

IPS Corporation (IPS Corp.) warrants that all new IPS Corp. products shall be of good quality and free from defects in material and workmanship for the shelf life as indicated on the product. If any IPS Corp. product becomes defective, or fails to conform to our written limited warranty under normal use and storage conditions, then IPS Corp. will, without charge, replace the nonconforming product. However, this limited warranty shall not extend to, nor shall IPS Corp. be responsible for, damages or loss resulting from accident, misuse, negligent use, improper application, or incorporation of IPS Corp. products into other products. In addition, any repackaging of IPS Corp. products also shall void the limited warranty. IPS Corp. shall not be responsible for, nor does this limited warranty extend to, consequential damage, or incidental damage or expense, including without limitation, injury to persons or property or loss of use. Please refer to our standard IPS Corp. Limited Warranty for additional provisions.

