TECHNICAL DATA SHEET

SC-125 Acrylic Solvent Cement

FOR CEMENTING	ADVANTAGES
Acrylic (All Grades) Dissimilar Materials: • Polystyrene • CAB (cellulose acetate butyrate) • Polycarbonate	• No left-over residue • Industrial strength • Non-Flammable • Fast Setting Time

SETTING TIME	2 minutes	VISCOSITY	Water-Thin

GENERAL DESCRIPTION

Caseway SC-125 Solvent Cement is specially formulated for bonding acrylic to itself and other plastics such as polycarbonate, polystyrene, and CAB (cellulose acetate butyrate). Recommended when fast setup time is required, it will develop a strong bond within minutes and can be applied quickly with a solvent syringe, dropper, brush, or by using the soak-method. After assembly the the solvent evaporates completely leaving no residue. Typical setting time is 2 minutes, but may be longer depending on temperature and humidity.

When cementing in high humidity SC-125 may leave white marks on acrylic called “blushing”. Under these conditions or when bonding extruded acrylic, SC-94 is recommended.

DIRECTIONS FOR USE

Preparation: The surfaces to be joined should be clean and fit accurately without forcing. Apply using one of the three techniques, capillary action method, soak/dip method, or mortar joint method. Detailed descriptions of the cementing methods are on page 2. The surfaces to be cemented may be left as cast, sanded (either wet or by hand), scraped, or machined. Unproper sanding, scraping, or machining may cause stress (crazing). Crazing is a network of fine cracks running on, or slightly under, the surface of plastic materials. The tendency to craze is greatly increased when the stressed material is exposed to a solvent or to solvent vapors. Edges to be cemented should not be polished since polishing usually rounds corners and creates crazing.

Application: Apply SC-125 using a syringe, dropper, or brush. Press parts firmly together with a pressure of 1-3 psi. Uneven pressure may cause weak joint strength. When using the soak (or dip) method of cementing, the pieces should be assembled quickly before the cement on the surfaces of the “cushion” evaporates.

Jigs: The success of a cementing job often depends on the design of the jig(s). The jig should keep the two parts firmly together, but should not force them out of shape. If the part is flexed or forced out of shape, local areas will be stressed and may cause crazing when brought in contact with the cement. The pressure should be great enough to:

a. Squeeze all air bubbles from the joint.

b. Avoid stress concentrated at any one point, and

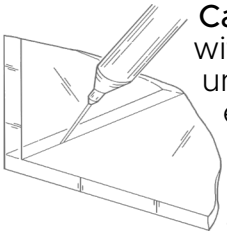
c. Compensate for the shrinkage that takes place in the joint during setting or hardening.

For most joints, a uniform pressure of approximately 1/psi has been found satisfactory.

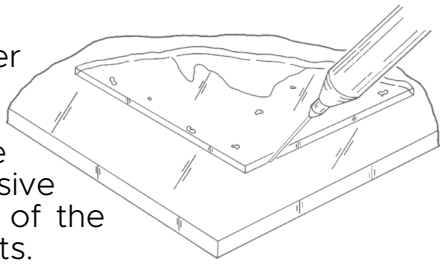
Cure: Joints are usually cured for light handling in 2 minutes. A strong bond will form within hours. Large areas are more difficult to bond without bubbles and may require 8 or more hours to dry. Typical joints will reach 50 – 80% strength within 24 hours and continue to increase overtime.

*It is the responsibility of the user to test the material compatibility and method used to apply this product before actual application.

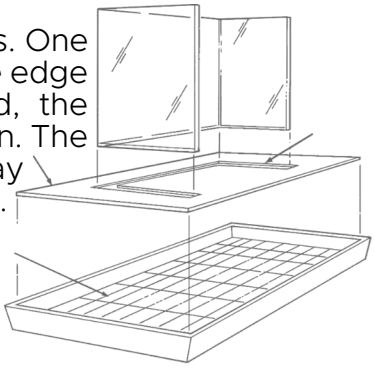
CEMENTING METHODS

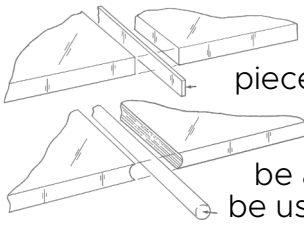


Capillary Method: The parts must be closely fitted together with no visible gaps. The parts to be cemented are either unclamped or very lightly clamped together (not exceeding 1 psi) with even pressure across the joint. The cement is dispensed into the joint (by non-corrosive dropper, needle, or similar instrument) along the edge of the joint. Capillary action draws the cement between the parts.



Soak Method: The parts must be closely fitted together with no visible gaps. One part is placed in non-corrosive container holding the solvent cement until the edge to be cemented softens into "cushion." When the parts are assembled, the cushion from the first part forms a cushion on the other part by solvent action. The soak time may vary by room temperature (approx. 2-5 minutes). Masking may be required near the edges to be cemented to prevent excessive softening. The parts should be allowed to set for 24 hours before handling. The soak method should not be used on parts molded or extruded from acrylic molding pellets or melt calendered sheet since they tend to dissolve rather than soften.





Mortar Joint Method: Typically used when other methods are impractical. The parts must be closely fitted together with no visible gaps. A thin piece of acrylic sheet is softened by soaking in the solvent cement until a cushion develops. The softened piece is then placed between the parts to be joined and light pressure is applied and maintained before the joint is set. The part should be allowed to set for 24 hours before handling. The mortar joint method should not be used on parts molded or extruded from acrylic molding pellets or melt calendered sheet since they tend to dissolve rather than soften.

PRELIMINARY ANNEALING

Preliminary annealing before cementing will help eliminate or reduce stresses present in machined or saw-cut areas, which may result in crazing during application of cement. Annealing should be done less than 24 hours before cementing, if possible.

AVAILABILITY

Available in ¼ pint (4 fl oz), pint (16 fl oz), quart (32 fl oz), gallon (128 fl oz), 5-gallon, (640 fl oz), and 55 gallon drum.

STORAGE

SC-125 Solvent Cement will evaporate over time. Tightly cap and seal the container as best as possible. Store in the original containers in a cool, dark area away from hot surfaces, heat, sparks, flames and other sources of ignition. Store locked up in an area not accessible to children.

SAFETY

This product is considered a hazardous material. Do not handle until all safety precautions have been read and understood. Read the product label & safety data sheet (SDS) for information on proper handling, health risks, firefighting methods, spill procedures, emergency contact information, precautionary information, disposal information & more. Safety data sheets are available at www.casewayproducts.com or by emailing support@casewayproducts.com

Wear protective gloves, protective clothing, eye protection, face protection. This product should never be used in a poorly ventilated (confined) area and without a suitable respiratory mask. This product is intended for use by experienced individuals only.

* The information, suggestions, technical data, and advice provided on this sheet are based on test results, knowledge, and experience believed to be accurate and reliable. However, all information, suggestions, technical data, and advice are not to be considered a warranty and Caseway Industrial Products, Inc. assumes no liability for any direct, indirect punitive, incidental, special consequential damages, to property or life.