PLASTIC GLUES AND ADHESIVE CEMENTS INFORMATION SHEET

General Usage, Safety, Storage & Handling Information

PLEASE READ DATA SHEETS BEFORE USING ANY OF THE FOLLOWING PRODUCTS!

REMEMBER TO USE COMMON SENSE AND TAKE RESPONSIBILITY FOR YOUR OWN SAFETY AND HEALTH WHILE ON THE JOB!

Parts to be joined should fit without forcing and be clean. Apply cement with brush, syringe or eyedropper. Assemble while parts are still wet. If cement is applied to one surface, let the two surfaces be in gentle contact for a few seconds to allow the cement to soften the dry surface, then press parts together in firm contact.

For capillary method, parts are placed lightly together and cement is applied to the edge of the joint with brush, eyedropper or syringe. By capillary action the cement will flow a considerable distance between two such surfaces. Allow a few seconds for the cement to soften the surfaces. Press parts firmly together.

For soak method, dip one or both surfaces until it is soft (approximately 2 to 5 minutes) then join them firmly. Initial bond forms very quickly. Bond strength continues to develop very rapidly, reaching high strength in 24 to 48 hours. Thereafter, strength will continue to increase gradually for some weeks.

In many cases, the cement dries too fast to apply by brush to the parts before they are joined.

If crazing is a problem, we suggest you consider annealing before cementing.

Under certain circumstances, especially with high humidity, the cement may leave a white mark on the plastic (commonly called blushing). These products are intended for use by skilled individuals at their own risk. Users should verify by tests that the product, as well as these methods, is suitable with the products being used in their application.
CAPILLARY CEMENTING

Capillary cementing is probably the most popular way of joining acrylic sheet. It works because of the ability of low-viscosity solvent-type cement to flow through a joint area by capillary action. Properly done, capillary cementing yields a strong, transparent joint. Solvent cements are available in several viscosities. City Plastics can recommend the best ones for your projects. First, make sure all parts fit together properly. Then join the pieces together with masking tape, or clamp them into a form that will support the pieces and hold them firmly in place. Keep the joint in the horizontal plane or the cement will run out. Apply cement carefully along the length of the joint. To cement a box-corner-type joint, apply cement to the inside edge if possible. If you’re cementing a joint not at an edge, apply the cement from both sides. If the cement does not flow completely into the joint, tilt the vertical piece very slightly (about 1 degree) toward the outside. This should allow the solvent to flow freely into the entire joint. Then, tilt the piece back again for a square corner. Let the joint dry thoroughly before removing tape or clamps. After a few seconds, the surface will be soft. If desired, apply a small amount of pressure. The initial bond forms in five to ten seconds. Wait three hours before doing subsequent processing. High strength is reached in 24 to 48 hours; strength will continue to build for several weeks.

CAUTION!
When using any solvent cement, work in a well ventilated area. Avoid breathing of vapour and contact of skin or eyes. In case of contact with eyes, flush with water. If swallowed, induce vomiting. Call physician immediately and transport to emergency facility.
WELDON #3
Non-Flammable. Water-thin, very fast set, solvent type for acrylics. Will also bond other plastics such as styrene, butyrate and polycarbonate to themselves.

WELDON # 16
Fast drying, high strength, bodied. Bonds acrylics to itself. Also for styrene, butyrate, polycarbonate and other plastics and porous surfaces.

WELDON # 10 (WHITE OR GREY IN COLOUR)
2-Part, high strength structural adhesive. High viscosity. Bonds PVC, acrylics, styrene, ABS, polycarbonates to steel, aluminium, etc.

WELDON # 40
A 2-Part reactive, high strength structural adhesive.

CHLOROFORM
Practically Non-Flammable. Water-thin, very fast set, solvent type for most plastics. Will bond plastics such as acrylic, ABS, styrene, butyrate and polycarbonate to themselves.

Note we recommend the use of WELDON #3 as an alternative to this product.

DICHLOROMETHANE
Water-thin, very fast set, solvent type for most plastics. Will bond plastics such as acrylic, ABS, styrene, butyrate and polycarbonate to themselves.

Note we recommend the use of WELDON #3 as an alternative to this product.

ACETONE
Extremely Flammable. Commonly used as a solvent for polyester and epoxy resins.

Water-thin, solvent for some plastics. Will bond plastics such as ABS, styrene, butyrate and to themselves.

Note we recommend the use of WELDON #3 as an alternative to this product.

Safety, Storage and Handling Information
Read the label on the container, the product bulletin and the Material Safety Data Sheet (MSDS) before use.

Use proper safety equipment and protective clothing. Safety glasses and protective gloves should be worn.

Work only in a well ventilated area. Avoid breathing of vapours. Avoid working in confined areas. If you must work in a confined or poorly ventilated area, use an approved positive pressure self-contained breathing apparatus or an air purifying respirator, as is designated in the MSDS. If you feel dizzy, nauseous, or develop headaches, leave the area and report your condition to proper line management. Don't expose yourself or others who are known to be hyper-sensitive to any type of chemical vapour. Remove contaminated clothing immediately and wash before reuse. Know where emergency exits and eyewash stations are located nearest to your work area. Report all unsafe conditions and procedures to your supervisor or to the person on the job responsible for job site safety for corrective action.

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