WELD-ON 4

ACRYLIC PLASTIC CEMENT

SUBSTRATE RECOMMENDATIONS

WELD-ON 4 is formulated as a blush-resistant cement for bonding acrylic plastic to itself. It will also form strong bonds with other plastics such as styrene, butyrate and polycarbonate to themselves. It will not bond to certain cross-linked acrylic.

BONDING RECOMMENDATIONS

WELD-ON 4 is being used by sign companies for cementing letters to acrylic panels. Strong butt joints are made with flat sheets by using the soak method. Butyrate capping is cemented to cutout acrylic letters. It is being used in industries for display items, plastic containers, housewares, bottles, etc.

GENERAL DESCRIPTION

Weld-On 4 is a moderately fast, clear, water thin, non-flammable, high strength solvent-type acrylic cement. This bond is affected by softening the surfaces to be joined, fusing them together with dissipation of the solvent. It is moderately fast acting and gives initial bond within a few minutes and forms strong joints within hours. Some plastic fabricators prefer WELD-ON 4 to WELD-ON 3 because it is less likely to leave white marks (commonly called blushing). However, if you need faster cement than this one, we suggest you try Weld-On 3 or for slower set, try Weld-On 5.

BOND STRENGTH DATA

Lap joint bond strength is based on using ¼" thick substrate with 1 square inch bonding area.

SUBSTRATE MATERIAL	2 Hours	24 Hours	1 Week
Acrylic (Cast & Extruded)	800 PSI	2000 PSI	2500 PSI
Polycarbonate	750	1600	2400
Styrene	400	1200	2000

ADHESIVE PROPERTIES AND CHARACTERISTICS

COLOR:	Clear
VISCOSITY:	Water Thin
SPECIFIC GRAVITY:	1.37 ± .040
COVERAGE:	Unknown, no way to determine

DIRECTIONS FOR USE

- Parts to be joined should be clean and fit without forcing. Apply cement with syringe, eyedropper or brush. 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 surfaces, 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 (approx. ¼") between two such surfaces. Allow a few seconds for the cement to soften the surfaces. Press parts firmly together.
- For soak method, vertically dip surfaces until softened (approx. 2 to 5 minutes), then join pieces firmly together.
- Initial bonds form 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.
- Although development of bond strength is slightly slower than that of WELD-ON 3, ultimate bond strength will be the same as the joints made with WELD-ON 3. If crazing is a problem, we suggest you consider annealing before cementing.

SHELF LIFE

Two years life expectancy in tightly sealed containers. Stability of the product is limited by the permanence of the container and the evaporation of the solvent when container is open. Evaporation of solvent will reduce the effectiveness of the cement.

SHIPPING

Shipping Information for Individual Containers Larger than One Liter: DOT Shipping Name: Dichloro-methane. DOT Hazard Class: 6.1. ID #: UN1593. Packaging Group: III. Label: (Domestic) Keep Away From Food (International) Toxic.

Shipping Information for Less than One Liter: DOT Shipping Name: Consumer Commodity. DOT Shipping Class: ORM-D.

SAFETY AND ENVIRONMENTAL PRECAUTIONS

This product is a non-flammable, moderately fast evaporating solvent cement. It is considered a hazardous material. In conformance with the Federal Hazardous Substances 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.

DANGER! – 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. Contact with hot surfaces may produce toxic effects. Keep container closed when not in use. Store in the shade below 80ºF. Use only with adequate ventilation. Avoid breathing of vapors. Atmospheric levels should be maintained below established exposure limit values. See Sections II and VIII of MSDS. If airborne concentrations exceed these limits, use a supplied air respirator. Do not use a chemical cartridge respirator. For emergencies and other conditions where short-term exposure may be exceeded, use an approved positive pressure self-contained breathing apparatus. In confined areas, use a positive pressure self-contained breathing apparatus (SCBA). 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, safety goggles and impervious apron should be used. Carefully read Material Safety Data Sheets and follow all precautions. Contains Methylene Chloride (75-09-2), Trichloroethylene (79-01-6) and Methyl Methacrylate Monomer (80-62-6). Methylene Chloride and Trichloroethylene are listed as cancer causing materials. OSHA has established special requirements for work place monitoring and protection. Extent of health risk depends on level and duration of exposure, as well as individual sensitivity. Do not use this product for other than intended use.

"Proposition 65 Warning": This product contains chemicals known to the State of California to cause cancer.

"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 MSDS's that are copied and distributed for this material.

FIRST AID

Inhalation: If ill effects from inhalation, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.

Eye or Skin Contact: Flush with plenty of water for 15 minutes. If irritation persists, get medical attention.

Ingestion: If swallowed, do not induce vomiting. Contact physician immediately.

QUALITY ASSURANCE

Every batch of this cement is checked to assure that consistent quality is maintained. An infrared absorption curve is recorded for each batch to ensure that this cement is properly formulated. Samples are taken from all batches and kept for a period of at least one year. A batch identification code is stamped on each can.

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, are suited to their application. Our warranty is limited to the replacement of defective IPS products.