

## QUICK-WELD PHYSICAL PROPERTIES:

### Liquid State

Composition: Surface Insensitive Ethyl Cyanoacrylate

Appearance: Colorless Liquid

Viscosity @ 77°F (25°C): 90-120 cps (Quick-Weld #1), 600 cps (Quick-Weld #2)

Brookfield LVF, Spindle 1-60 rpm

Shelf Life: One Year

### Cured State

Gap Filling: 0.2mm (Quick-Weld #1), 0.25mm (Quick-Weld #2)

Tensile Shear Strength: 18-28 n/mm<sup>2</sup> (2610-4060 psi)

Service Temperature Range: -76 to 176°F (-60 to +80°C)

Full Cure: 24 Hours

Melting Point Temp.: 320 to 338°F (160 to 170°C)

### Shear Strength ASTM D 1002/DIN 53283

Grit Blasted Steel	>20 n/mm <sup>2</sup> (>2900 psi)
Etched Aluminum	>18 n/mm <sup>2</sup> (>2610 psi)
Rubber	>22 n/mm <sup>2</sup> (>3190 psi)
Wood	>25 n/mm <sup>2</sup> (>3625 psi)
Polycarbonate	>12 n/mm <sup>2</sup> (>1740 psi)
ABS	>10 n/mm <sup>2</sup> (>1400 psi)

### Bonding Times:

Plastics	2-5 seconds
Wood	1-5 seconds
Metals	8-10 seconds
Rubber	<3 seconds
Leather	5-15 seconds
Ceramics	12-18 seconds

### Physical Properties:

Coefficient of Thermal Conductivity, ASTM C177, W.m <sup>-1</sup> .k <sup>-1</sup>	0.1
Glass Transition Temperature, ASTM E228	248°F (120°C)
Coefficient of Thermal Expansion, ASTM D696, K <sup>-1</sup>	75x10 <sup>-6</sup>

### Electrical Properties:

Dielectric Strength, ASTM D149, kV/mm	25
Volume Resistivity, ASTM D257, Ohm.cm	1x10 <sup>16</sup>
Dielectric Constant, 77°F (25°C), ASTM D150	2.7

### FIRST AID TREATMENT:

If bonding of the skin should occur, do not pull apart. Soak the bonded area in warm soapy water for several minutes and then gently peel apart. A solvent such as acetone, dimethylformamide or nitromethane can be used to loosen bond in the same way. Wash area thoroughly to remove solvent. We recommend the use of plastic gloves and safety glasses to prevent skin and eye contact during use.

IN CASE OF CONTACT WITH EYES OR OPEN WOUNDS, DO NOT USE SOLVENTS, INSTEAD FLUSH WITH COPIOUS AMOUNTS OF WATER AND SEEK MEDICAL ATTENTION IMMEDIATELY. CYANOACRYLATE VAPORS ARE TEAR PRODUCING AND CAN CAUSE EYE IRRITATION AND TEARING IN POORLY VENTILATED AREAS.

### KEEP OUT OF THE REACH OF CHILDREN

### STORAGE:

- Avoid direct sunlight which causes polymerization.
- Store in a dry place. Small amounts of moisture (contained in the air) can cause polymerization. Keep cap tightly closed when not in use.
- Maintain temperature below 80°F. Refrigeration storage (40°F) will extend shelf life. Allow product to attain room temperature before using.

All information, recommendations and suggestions appearing in this bulletin concerning the use of our products are based upon tests and data believed to be reliable, however, it is the users responsibility to determine the suitability for his own use of the product described herein.



# IES

P.O. Box 185  
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## Product #631 Quick-Weld Adhesive Kit

Includes:

- (1) #612 Quick-Weld #1 Adhesive
- (1) #622 Quick-Weld #2 Adhesive
- (1) #650 Quick-Set Activator

### INFORMATION ABOUT QUICK-WELD ADHESIVES

**QUICK-WELD ADHESIVES** are revolutionary new bonding liquids which are dramatically changing the types of adhesives used in the automotive industry. QUICK-WELD is an excellent adhesive for repairing plastic grilles, SMC body parts, urethane parts, rubber and various other types of plastic.

This solvent-free, single component product bonds almost all types of close fitting materials in seconds. Metals, plastics, elastomers, ceramics, leather, glass, etc. can all be bonded at room temperature.

QUICK-WELD is easy to use and produces a strong transparent bond almost instantly which cures to a film strength of up to 4000 psi with excellent chemical resistance.



### QUICK-WELD #1

A low viscosity, water-thin adhesive used mainly for bonding close fitting parts or where penetration is needed.

Part No. **612** 1 oz. Bottle



### QUICK-WELD #2

A high viscosity (thicker) adhesive used to bond irregular surfaces or when gap filling requirements are needed. The cure time is slightly slower to allow a few seconds for alignment of parts.

Part No. **622** 1 oz. Bottle

**QUICK-WELD ADHESIVES** are the most economical approach to bonding. They can be used in an unlimited number of substrates of similar materials. However, when bonding dissimilar surfaces that sometimes **contain** an acid residue, a slow cure may result. This can easily be prevented by the use of QUICK-SETACTIVATOR.



### QUICK-SET ACTIVATOR

Used to prime surfaces to be bonded. On porous material such as fiberglass and SMC body parts, QUICK-SET ACTIVATOR can be applied prior to applying QUICK-SET ADHESIVE to insure a quick and total bond. Simply apply the activator to one of the surfaces to be bonded, allow the solvent carrier to evaporate and then bond as usual. Even though the solvent has evaporated, the sprayed area still remains active for up to 10 minutes. QUICK-SET ACTIVATOR can also be sprayed onto the bond area over the QUICK-WELD ADHESIVE to lessen the cure time, especially where gaps or voids exist up to .020".

**CAUTION:** When QUICK-SET ACTIVATOR is applied to cyanoacrylate adhesives (instant glues), an exothermic reaction occurs. Do not activate instant glues on skin as harmful burns may result.

Product No. **650** 4 oz. Pump Spray Bottle

### SURFACE PREPARATION:

All surfaces to be bonded must be free of surface contaminants. Be sure to remove all dust, dirt, grease or any foreign matter from bonding surfaces. For best results, use IES #1700 SUPER CLEANING SOLVENT to remove contaminants. Some solvents damage the surface of the plastic. It is recommended that a small area be tested before applying solvents. With some plastics and polyurethanes it may be necessary to remove mold release agents. To do this, first wipe down the area with a compatible solvent, then use a mild sandpaper to mechanically remove the mold release, then wipe down again with a compatible solvent wash.

Any anodized, plated or coated parts should be sanded to remove coating, then wiped down with a compatible solvent wash.

Bond strength on painted parts will be determined by how well the paint adheres to its substrates.

**QUICK-WELD ADHESIVES ARE NOT RECOMMENDED TO BE USED ON POLYPROPYLENE AND POLYETHYLENE PLASTICS.**

### DIRECTIONS FOR QUICK-WELD ADHESIVE #1

*Low Viscosity Adhesive - For bonding close fitting parts.*

1. Lightly spray area to be bonded with QUICK-SET ACTIVATOR. Allow a few seconds for solvent carrier to evaporate.
2. Join the align parts. IES #70525 Aluminum Body Tape may be used to hold parts together during bond.
3. Apply QUICK-WELD #1 to fractured area. Additional QUICK-SET ACTIVATOR can be sprayed over QUICK-WELD #1 to insure instant bond.

If repairing SMC or fiberglass materials, after the above steps have been completed, rough sand the bonding area and apply IES #8001 HI-STRESS EPOXY FILLER. Allow time for cure and sand to a smooth finish.

### DIRECTIONS FOR QUICK-WELD ADHESIVE #2

*High Viscosity Adhesive - For bonding irregular surfaces, where parts do not fit perfectly.*

1. Apply QUICK-SET ACTIVATOR to one of the surfaces to be bonded. Allow solvent carrier to evaporate.
2. Apply QUICK-WELD #2 to the other part.
3. Join the aligned parts quickly. Continue to hold them firmly in place for approximately 10 seconds.
4. Spray an additional amount of QUICK-SET ACTIVATOR on the bond area to insure a complete cure.

If it is necessary to build up the area of the bond, additional adhesive and activator can be applied.