

8560 INTER-WELD 60

MSA Adhesive Panel Bonding

INTER-WELD 60 MSA is a 1:1, methacrylate, structural adhesive that features an extended open time for bonding large components or for prolonged assembly operations. Offers outstanding adhesion to a wide variety of materials, including metal, cured fiberglass, cured composites, cured vinyl esters, cured gelcoats and thermoplastics. Exhibits high strength and superior toughness over a wide temperature range, including sub-zero temperatures. The formulation has special materials to curtail odor after application and during the long open time. This product has a unique benefit to end users concerned with read-through; it has low exotherm in large masses to prevent sensitive parts from seeing distortion.

DIRECTIONS

1. Remove all paint, primer, corrosion and rust from surfaces to be bonded using a 36 grit Abrasive Trim-Kut Disc (IES #7060). When preparing aluminum surfaces use 80 grit abrasive disc.
2. Straighten all metal and clamp replacement part into position for proper alignment and fit. There should be no tension on the replacement panels
3. Remove replacement panel from vehicle.
4. Clean areas to be bonded with IES Super Clean (#1700 or #4700 Super Clean to remove any grease, wax or any other contaminants. Other cleaners may leave an oily film and prevent proper bonding.
5. When bonding aluminum parts, apply IES RUST-RAIDER/Surface Prep (#1840) to the bonding surfaces of the replacement panel and the vehicle. Allow 20 minutes etching time. Rinse with water or wipe off with a wet cloth, then wipe dry with a clean, dry cloth.
6. Apply IES Weld-Thru Primer (#4525 or #4526) to the weld areas to ensure there will be no bare metal areas between the weld areas and the adhesive bond areas.
7. Place adhesive cartridge in the applicator gun.
8. Remove cap completely from cartridge. To remove cap, insert a flat head screw driver into slot and pry upward. Tilting the gun back, pump the gun until both parts (A & B) are equally flowing from the cartridge. (See separate INTER-MIX and INTER-WELD gun loading instructions).
9. Attach the static mixer nozzle to the cartridge and turn clockwise until securely fastened. Prior to applying adhesive, dispense a bead of adhesive approximately the length of the mixer or longer to ensure a proper uniform mix.
10. Apply IES INTER-WELD 60 MSA Adhesive (#8560) to all areas to be bonded (cover all bare metal surfaces). This means the replacement part as well as the vehicle. Using a plastic spreader, tool out the adhesive to provide a base coat for an additional adhesive bead, ensuring all bare metal surfaces are coated.
11. Apply IES INTER-WELD 60 MSA Adhesive (#8560) approximately 1/4" from the inside edge of the replacement part. We recommend attaching an IES 1/2" or 1" Zip-Tip to the mixer to keep from applying too much adhesive.
12. Clamp the part into its proper position within 60 minutes. When repositioning, slide the panel. Never lift the part when repositioning. Apply clamps at 12" intervals or closer if necessary. In areas where clamps cannot be applied, use sheet metal screws to hold the part in place.
13. Tool any adhesive "squeeze out" to seal the outside seam along the bonded edge of the part.
14. **CAUTION: ADHESIVE IS FLAMMABLE when in a liquid state.** Allow adhesive to set before welding (approximately 1-1/2 to 2-1/2 hours). Keep any welding to a minimum of two inches from the adhesive. Adhesive is combustible when cured and will burn. Refer to Material Safety Data Sheet.
15. Spray the inside of the repair at the bonded seams with IES INTER-GUARD Rust Proofing Wax (Honeycoat Corrosion Fighter) (#4557) if possible.
16. Clamps may be removed after welding or after adhesive has set, allow 1-1/2 to 2-1/2 hours. Parts may need to remain clamped for a longer time if temperature is below 75° F. Cure time is approximately 24 hours.

Note: Set times, de-clamping times, cure times etc. are based on 75 degrees F. Cooler temperatures may extend the time as warmer temperatures may lessen the time.

TECHNICAL INFO

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|---------------------|--------------------|
| Work Time: | 60 Minutes Approx. |
| De-clamping Time: | 90 to 130 Minutes |
| Full Cure Strength: | 24 Hours Approx. |

Application Temp: 70 - 90°F (21-32°C)

Storage Temp: Below 75°F (24°C), Dry conditions

UNCURED PROPERTIES:

| | Part A | Part B |
|-----------------------------|---------|---------|
| Viscosity, cps (#7. 2.5rpm) | 305,000 | 220,000 |
| Viscosity, cps (#7. 20rpm) | 76,000 | 50,000 |
| Color | Natural | Amber |
| Mix Ratio (wt & volume) | 1 : 1 | |

CURING PROPERTIES*

| | |
|---------------------------------|------------------------|
| Gel Time | 55-65 minutes |
| Fixture Time (De-clamping time) | 1-1/2 hrs to 2-1/2 hrs |
| Exotherm Time | 85-95 minutes |
| Exotherm Temp (max) | 90°C (50 gram mall)* |

*Curing properties are highly dependent on the specific application and the materials being bonded. The ranges used here are based on representative examples of typical applications. Above values with 10 gram mass mixed in an open cover in a controlled lab test unless otherwise stated.

CURED PROPERTIES

| | |
|------------------------|----------------|
| Hardness Shore D 60-65 | |
| Elongation | 20 - 30% |
| Operating Temp Range | -40°F to 250°F |

BOND PERFORMANCE

Tensile shear ASTM D1002 using commercial stock cut into 1x4 laps. No surface preparation other than chemically wiped.

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|-----------------------|---------------|-------------------|---------------|
| E-Coat/E-Coat | Stock Failure | SMC/SMC | Stock Failure |
| Fiberglass/Fiberglass | Stock Failure | ABS/ABS | Stock Failure |
| Gelcoat/Gelcoat | Stock Failure | Alum/Alum (2024T) | >1500 psi |
| Steel/Steel | >3000 psi | | |

| | |
|---|---------|
| Peel Strength, Steel/Steel (ASTM D1876) | 20 pli |
| Impact Strength FG/FG, Auto Side Impact | >3.78 J |

CHEMICAL RESISTANCE

INTER-WELD 60 MSA exhibits excellent resistance to commonly encountered service environments and chemicals. Depending on the materials being bonded, INTER-WELD 60 MSA will retain bond strength in boiling water, salt water, salt fog, kerosene, gasoline, diesel fuel, antifreeze, hydraulic fluids, and cutting oils. **Resistance to specific chemicals and environments must be tested.** NOT RECOMMENDED FOR CONTINUOUS EXPOSURE TO: Crude oil, toluene, MEK, Acetone, 100% low molecular weight aromatics, aldehydes, and ketones.

WARNING: Uncured liquid Polyester resin / styrene repair compounds and fiber glass gelcoats should never be applied over the top of IES #8560 INTER-WELD Methyl-Methacrylate Adhesive. A reaction between the polyester resin and the MMA will occur resulting in the breakdown of the adhesive.

8560 300 mL cartridge kit 4/case

each kit includes two static mixers (#8265),
one 1/2" and one 1" Zip-Tip.

FOR PROFESSIONAL USE ONLY

NOTICE TO PURCHASER: The following warranty is in lieu of all other expressed or implied warranties, specifically all goods are manufactured of first class materials and by competent professionals. We have no control over the use and application of our products. Our liability shall not exceed the purchase price.