



DUAL-MIX MULTI-PURPOSE PANEL ADHESIVE

TECHNICAL DATA SHEET

DESCRIPTION

Dual-Mix Multi-Purpose Panel Adhesive is a two-component epoxy for panel bonding of steel, aluminum, SMC and fiberglass.

FEATURES

- Dual-Mix™ Forever Warranty
- OEM recommended
- Long working time
- Exceptional impact and peel strength
- Excellent corrosion resistance
- Spacer beads for consistent bond line thickness
- Non-sag formula
- Simple surface preparation
- Compatible with MIG or STRSW welding

SUITABLE SUBSTRATES

- Steel
- Aluminum
- SMC
- Fiberglass

TYPICAL CURED PROPERTIES

| Part: | Product Name: | Color: | Container: |
|--|--------------------------------|--------|-----------------|
| 39747 | Multi-Purpose Panel Adhesive | Black | 7 oz. Cartridge |
| Working time: | 90 minutes @ 70°F (21°C) | | |
| Set time: | 4 hours @ 70°F (21°C) | | |
| Cure time: | 24 hours @ 70°F (21°C) | | |
| Heat cure time: | 1 hour @ 120°-140°F (49°-60°C) | | |
| Lap shear @ 70°F (21°C) (psi) on steel: | 3000+ ASTM D 1002 | | |
| Coverage: | 115" @ 3/8" diameter bead | | |

Check local VOC regulations to ensure compliance of all products in your area.

Always wear OSHA required (PPE) Personal Protection Equipment as outlined on the SDS and product label to ensure your safety.



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HANDLING AND APPLICATION



PREPARATION:

Bonding surfaces should be clean, dry and free of contamination. Dry-fit all panels before applying adhesive to ensure proper alignment and clearance.

STEEL AND ALUMINUM:

1. Clean surfaces to be bonded with **SEM Solve** or **XXX Universal Surface Cleaner**.
2. Grind each surface with P36 grit grinding disc at low speed to maintain grinding marks. Do not grind at high speed.
3. Re-clean surfaces with **SEM Solve** or **XXX Universal Surface Cleaner** if necessary.

Note: Always use lint-free towels when cleaning surfaces to avoid lint and particle contamination.

SMC AND FIBERGLASS:

1. Clean surfaces to be bonded with **SEM Solve** or **XXX Universal Surface Cleaner**.
2. Grind each surface with a P36 grit grinding disc at low speed to maintain grinding marks. Do not grind at high speed.
3. Re-clean surfaces with **SEM Solve** or **XXX Universal Surface Cleaner** if necessary. Panel must be completely dry before applying adhesive. Do not saturate exposed fibers.

Note: Always use lint-free towels when cleaning surfaces to avoid lint and particle contamination.

MIXING:

It is highly recommended that adhesives be dispensed through a static mixer. Once mixed, **Dual-Mix™ Multi-Purpose Panel Adhesive** should achieve a uniform color. Heat build-up during and after mixing is normal.

Place cartridge into **71119 Universal Manual Applicator** or **70039 Universal Pneumatic Applicator**. Remove retaining nut and red insert. To maintain product quality, replace after use. Prior to installing static mixer, equalize cartridge by dispensing product until both parts flow equally. Install static mixer. Cut tip to desired application size. Dispense 2-3 inches of test material to make certain color is uniform before applying to job.

STATIC MIXERS:

| Part: | Product Name: | For: | Container: |
|-------|-----------------------------------|-----------------|------------|
| 70011 | Integral Nut Square Static Mixers | 7 oz. Cartridge | 6 Pack |
| 70012 | Integral Nut Square Static Mixers | 7 oz. Cartridge | 50 Pack |



APPLICATION:

Apply product to both bonding surfaces and tool with a spreader or acid brush covering all exposed bare metal.



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Use enough material to completely fill the joint when parts are clamped. Always follow step by step directions from the OEM and the instructions enclosed with cartridge. To assure maximum bond strength, surfaces must be mated within the adhesive's working time.

Note: **Dual-Mix™ Multi-Purpose Panel Adhesive** is intended for full panel replacement only. Partial panel replacements may show a bond line or halo due to techniques in workmanship and are not warranted.

IMPORTANT:

Bonding applications are intended for secondary (cosmetic) panels only. Structural components should never be bonded unless specified by the OEM.

DAMPENING MATERIAL:

When replacing door skins, roof skins or quarter panels, **Dual-Mix Flexible Urethane Foam**, **Dual-Mix Rigid Urethane Foam** and **Dual-Mix Panel Vibration Control Material** can be used to replace the OEM dampening material found between the panels and the structural members. Refer to product information for proper selection.

CURING:

Parts should remain undisturbed between the material's working time and set time. After the set time is achieved, the material has reached handling strength and clamps or screws can be removed. Temperatures below 55°F (13°C) will slow the cure; above 85°F (29°C) will accelerate cure rate. To enhance cure time, heat to 120 – 140°F (49 – 60°C) for 1 hour. At 70°F (21°C), **Dual-Mix Multi-Purpose Panel Adhesive** sets in 4 hours and fully cures in 24 hours.

WELDING:

Dual-Mix Multi-Purpose Panel Adhesive is versatile and can be used with traditional welding methods or resistance spot welding techniques while wet when following OEM recommendations. Remove excess adhesive prior to welding.

Note: Prior to welding apply **Zincweld™** or **Copperweld™** on any area where adhesive will not be present. Allow primer to fully dry.



CLEANUP:

It is important to clean up excess adhesive from the work area and application equipment before it cures. Use appropriate cleaning materials compliant with VOC regulations in your area. Keep containers tightly closed after use. **Dual-Mix Multi-Purpose Panel Adhesive** is flammable when exposed.



STORAGE:

Dual-Mix Multi-Purpose Panel Adhesive should be stored in a cool dry place with adequate ventilation away from heat, sparks and flames. The shelf life for **Dual-Mix Multi-Purpose Panel Adhesive** is 2 years when stored



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at 40 – 77°F (4 – 25°C). Exposure above room temperature will reduce shelf life.

RELATED PRODUCTS:

| Part: | Product Name: | Size: |
|-------|---|-----------------|
| 38371 | SEM Solve | Gallon |
| 38373 | SEM Solve | 20 oz. Aerosol |
| 38374 | SEM Solve | Quart |
| 38375 | SEM Solve | 5 Gallon |
| 39357 | Dual-Mix Flexible Urethane Foam | 7 oz. Cartridge |
| 39977 | Dual-Mix Panel Vibration Control Material | 7 oz. Cartridge |
| 39997 | Dual-Mix Rigid Urethane Foam | 7 oz. Cartridge |
| 77771 | XXX Universal Surface Cleaner | Gallon |
| 77774 | XXX Universal Surface Cleaner | Quart |
| 40783 | Copperweld™ | 20 oz. Aerosol |
| 40786 | Brushable Copperweld™ | 8 oz. Can |
| 40773 | Zincweld™ | 16 oz. Aerosol |
| 70011 | Integral Nut Square Static Mixer | 6 Pack |
| 70012 | Integral Nut Square Static Mixer | 50 Pack |
| 70039 | Universal Pneumatic Applicator | 1 Each |
| 71119 | Universal Manual Applicator | 1 Each |

Technical Consultation Service

Our Technical Staff is ready to assist you with any questions. You are invited to take advantage of our extensive experience, laboratory services and trained field service representatives. Call (800) 831-1122 for answers to your questions. Hours of operation are Monday through Thursday 8:00 am until 5:00 pm EST and on Friday 8:00 am until 4:30 pm EST.

Disclaimer:

The information supplied in this document is for guidance only and is secondary to the OEM repair guidelines. Instructions should not be construed as a warranty. All implied warranties are expressly disclaimed. All users of the materials are responsible for assuring that it is suitable for their needs, environment and use. All data subject to change as SEM deems appropriate.

Users should review the Safety Data Sheet (SDS) and product label for the material to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material. Copies of the SDS and product label are available upon request.