



Metal Welder™ II

Description: A two-part 10:1 methacrylate adhesive with a medium set time designed for structural bonding with little or no preparation and no priming needed.

Intended Use: Structural bonding of aluminum, steel and stainless steel along with bonding thermoplastics and composite assemblies.

Product features:
Low odor technology
Bonds dissimilar substrates
Excellent impact, peel, and shear resistance
Beads in activator for proper bond line thickness
Superb salt spray durability, including aluminum

Limitations:

Typical Physical Properties: *Technical data should be considered representative or typical only and should not be used for specification purposes.*

Cured 7 days @ 75° F

T-peel	30-40 pli
Impact Resistance	>20 ft.lb./in.(2)
Tensile Elongation	40-60%
Shore Hardness	75 Shore D
Gap-Fill	0.375 in.
Adhesive Tensile Lap Shear[AL]	2,648 psi
Adhesive Tensile Lap Shear[GBS]	2,020 psi
Adhesive Tensile Lap Shear[SS]	2,607 psi
Impact Resistance [AL@-40F]	16 ft.-lb./in[2]
Tensile Lap Shear[14day salt fog AL]	2,100 psi

TESTS CONDUCTED

Adhesive Tensile Shear ASTM D 1002
T-Peel Strength ASTM D 1876
Impact Resistance ASTM D 950
Cured Hardness Shore D ASTM D 2240

Uncured

Color	Grey
Viscosity	Adhesive.: 90-120,000 cps; Activ.: 50-80,000 cps
Weight	Adhesive:8.06lbs./gal.: Activator: 9.25 lbs./gal
Mixed Viscosity	90,000 cps
Mix Ratio by Volume	10:1
Mix Ratio by Weight	8.7:1
Mixed Density	8.17 lbs./gal. / .98gm/cc
Flashpoint	51°F
Working Time	12-16 min. @ 72°F, 22°C
Fixture Time	45-55min. @ 72°F, 22°C
Functional Cure	4 hrs.
Full Cure	24 hrs.
Service Temperature	-67°F to 200°F

Surface Preparation: Clean surface by solvent-wiping any deposits of heavy grease, oil, dirt, or other contaminants. Surface can also be cleaned with industrial cleaning equipment such as vapor phase degreasers or hot aqueous baths. If working with metal, abrade or roughen the surface to significantly increase the microscopic bond area and optimize the bond strength.

Mixing Instructions: ---- Proper homogenous mixing of resin and hardener is essential for the curing and development of stated strengths. ----

25 ML DEV-TUBE

1. Squeeze material into a small container the size of an ashtray.
2. Using mixing stick included on Dev-tube handle, vigorously mix components for one (1) minute.
3. Immediately apply to substrate.

35ML/50 ML/250 ML/380 ML/400 ML CARTRIDGES

1. Attach cartridge to Mark V™ [50ml], 380ml, 250ml [15:1 caulk gun], or 400ml dispensing systems [manual or pneumatic].
2. Open tip.
3. Burp cartridge by squeezing out some material until both sides are uniform (ensures no air bubbles are present during

- mixing).
 4. Attach mix nozzle to end of cartridge.
 5. Apply to substrate.

Application Instructions:

1. Apply mixed product directly to one surface in an even film or as a bead.
2. Assemble with mating part within recommended working time.
3. Apply firm pressure between mating parts to minimize any gap and ensure good contact (a small fillet of product should flow out the edges to display adequate gap fill.)
4. Bond line thickness of mixed adhesive should be @ .012" for optimum adhesion..

For very large gaps:

1. Apply product to both surfaces
2. Spread to cover entire area OR make a bead pattern to allow flow throughout the joint

Let bonded assemblies stand for recommended functional cure time prior to handling.

CAPABILITIES:

Can withstand processing forces
 Do not drop, shock load, or heavily load

Storage:

Store between 55°F and 75°F. Continuous storage above 75°F reduces the shelf life of the materials. Prolonged exposure above 100°F quickly diminishes the product's reactivity, and should be avoided. Shelf life can be extended by refrigeration between 45°F and 55°F. DO NOT FREEZE.

Compliances:

None

Chemical Resistance:

Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F

Acetic (Dilute) 10%	Very good	Sodium Hydroxide 10%	Very good
Ammonia	Very good		
Cutting Oil	Excellent		
Gasoline (Unleaded)	Poor		
Glycols/Antifreeze	Excellent		
Hydrochloric 10%	Very good		
Mineral Spirits	Fair		
Motor Oil	Fair		

Precautions:

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

For technical assistance, please call 1-800-933-8266

FOR INDUSTRIAL USE ONLY

Warranty:

Devcon will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

Disclaimer:

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data.

Order Information:

14363 380 ml Co-axial cart