

## AT-8040

**Technical Data Sheet** 

AT-8040 is a 1:1, meter-mix, methacrylate-based structural adhesive formulated to bond engineered thermoplastics, thermosets, composites, and metal structural elements in any combination. It has excellent adhesion to as-received metal surfaces, including aluminum, galvanized, stainless and plated steels. It exceeds the strength of PVC, ABS, acrylic, polycarbonate, fiberglass and many other composites and engineering plastics. It forms tough, high-strength bonds without surface preparation, primers, or chemical wipes. It features a 3-4 minute open time for fast fixturing. This product is formulated as a non-sag, high viscosity product with a special filler for holding anchoring studs and clips to walls and ceilings and is easily dispensed from cartridges with static mixer tubes. AT-8040 also provides low temperature impact and peel strength. This formulation is Reach Compliant and acid free.

Viscosity, cPs, Brookfield TD @ 2.5/20 rpm	<b>PART A</b> 250,000/ 50,000	<b>PART B</b> 350,000/ 90,000
Color	<b>PART A</b> Off White	PART B Amber
Density (pounds/gallon)	<b>PART A</b> 8.82	<b>PART B</b> 8.45
Mix Ratio (Weight & Volume)	1:1	
Flashpoint	51°F (11°C)	

**UNCURED PROPERTIES** 

#### **TYPICAL CURED PROPERTIES**

Color	Off-White to Amber	
Hardness (Shore D)	68-70	
Elongation (%)	10%	
Operating Temperature	-40° to 248°F (-40° to 125°C)	

### **TYPICAL CURING PROPERTIES**

Mixed Viscosity, cPs, Brookfield TD @ 2.5/20 rpm	265,000/65,000	
Mixed Density (pounds/gallon)	8.63	
Working Time	3-4 Minutes	
Fixture Time 3 kg weight, Aluminum/ Aluminum	5-6 Minutes	
Peak Exotherm Temperature (range)	257° to 275°F (125° to 135°C)	
Peak Exotherm Time (range)	12 - 14 Minutes	

Room Temperature Cure







Bonds Diverse Substrates

High Green Strength

Fast Fixturing

Acid Free







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#### BOND PERFORMANCE (STRENGTH AFTER 24 HOUR CURE, UNLESS NOTED)

Tensile Shear (ASTM D1002), psi (N/mm2)

**Steel**: 3,200 (22)

Acrylic: Substrate Failure

**PVC**: Substrate Failure

ABS: Substrate Failure

SMC: Substrate Failure

Aluminum: 3,250 (22.4) Galvanized: 2,200 (15.2) Polycarbonate: Substrate Failure Fiberglass: Substrate Failure Ultem to Aluminum: Ultem Failure

#### 1 HOUR CURE - Approx 75% full cure

**Steel**: 2,400 (16.6)

Aluminum: 2,420 (16.7)

Galvanized: 1,800 (12.4)

#### Peel Strength (ASTM D1876), pli (N/mm) Steel: 65 (11.4) @ 0.017" (0.432 mm) Gap

Impact Strength (GM9751P), Joules/in2 (KJ/m2 ), 2 kg Hammer

Aluminum: 13 (9.6)

The technical data was generated under controlled laboratory conditions using standard substrates. Performance must be verified on production substrates and tested under end use conditions to confirm performance.

#### Packaging & Shelf Life

AT-8040 is available in 50 ml, 400 ml, and 5-gallon pail kits. The materials can be used with conventional meter/mix dispense equipment. All materials should be stored in a cool place when not used for an extended period of time. Do not freeze. Shelf life of this product is six (6) months at 73°F (23°C) when stored in original sealed bulk containers and 12 months in cartridges.

#### **Chemical Resistance**

AT-8040 exhibits good resistance to commonly encountered service environments and chemicals. Resistance to specific chemicals and environments must be tested by the end-user to ensure the adhesive is compatible to both the substrate and the environment.

NOT RECOMMEND FOR LONG TERM EXPOSURE TO FOLLOWING SOLVENTS: Toluene, MEK, acetone, 100% low molecular weight aromatics, aldehydes, and ketones.

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