# **Technical Data Sheet**





## **AT-1 Very High Bond Strength Acrylic Tape**

AT-1 is a pressure sensitive, water-clear, solid acrylic tape system designed to provide a superior bond between a wide variety of substrates. The tape possesses a uniform, high-tack, acrylic adhesive on both surfaces and will bond to most clean, dry, oil-free substrates.

Thickness ranges from 0.25mm to 1.5mm (0.010" to 0.060")

Width ranges from 6mm to 457mm (0.25" to 18")

Technology / Base	Acrylic
Type of Product	Very High Bond Acrylic Tape
Appearance / Color	Water-clear
Consistency	Tape

#### **Features and Benefits**

AT-1 offers numerous advantages including a waterproof bond, ease of application, and the ability to withstand thermal movement.

- Transparent appearance works well with applications involving glass or other clear materials
- Pressure sensitive bonding
- Solid composition for easy cutting
- Moisture resistant
- Excellent weathering properties
- Maintains adhesion at sub-zero temperatures
- Hardening or brittle resistant with age
- Flexible conforms to intricate shapes

#### **Technical Data**

Property	Typical Value	Test Method
Tensile Strength (MPa)	1.7	ASTM D412 Die C
Elongation (%)	1000	ASTM D412 Die C
Dynamic Shear(kPa)	415	ASTM D3163
Static Shear	Passes @ 74°F	WSB-M3G138-B (1000g, 1 in <sup>2</sup> , 100hrs)
	Passes @158°F	
90° Peel Adhesion (N/mm)	4.4	ASTM D3330
Chemical Resistance - Cleavage Peel (N/mm)		FLTM BU 112-02, Method C
	12.3	3 Days @ RT
	11.4	Unleaded Gasoline - 1hr
	10.5	Diesel Fuel - 1hr
	11.4	Water Immersion - 240hrs
UV Resistance	Maintains minimum 90% of initial strength	2 weeks UV-A @ 140°F
Application Temperature Range	10°C to 38°C (50°F to 100°F)	
Service Temperature Range	-34°C to 93°C (-30°F to 200°F)	

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backed parts.



### **Typical Applications**

- Auto trim attachment
- Signs
- Graphics
- Skin to frame assembly
- Furniture
- Appliances
- Many other manufacturing and construction applications to replace mechanical fasteners and welds

### **Specifications**

Meets requirements of:

Ford WSB-M3G138-B

#### **Typical Packaging**

Contact your H.B. Fuller representative for specific sizes.

## Storage and Shelf Life

Store material in original unopened packaging at temperatures between 4°C to 38°C (40°F to 100°F). Shelf life is 24 months when stored as recommended.

#### Safety and Disposal

Prior to working with this or any product consult product label and Safety Data Sheet (SDS) for necessary health and safety precautions and disposal considerations.

#### **General Instructions**

variety of substrates, including many plastic composites, sealed wood, and metals. Low surface energy materials such as polyethylene, polypropylene, silicones and PTFE can be difficult to bond to. Thorough evaluation is recommended when bonding to any questionable surface. An adhesion promoter (primer) for use with pressure sensitive acrylic adhesives may be necessary to facilitate proper bonding, and is available from H.B. Fuller.

2. Preparation of Substrate: The substrate to be bonded should be cleaned with an appropriate solvent, preferably isopropanol (IPA). The acrylic adhesive backed part should be applied within 15 minutes of cleaning. To ensure removal of all contaminants without leaving any residue, use a clean, lint-free wiping cloth or disposable wipe. Never use recycled rags. Other solvents such as hexane, heptane, or methanol may be suitable for cleaning various substrates after thorough evaluation. The substrate must be

1. Substrate Evaluation: Acrylic adhesive is suitable for bonding a

3. Adhesive Promoter Application-If necessary: Apply the AP-1 Adhesion Promoter to the substrate(s) either with a lint-free applicator or foam brush. Apply the Adhesion Promoter in a "wet" laydown thickness range of 1-8 mils. Allow the Adhesion Promoter to dry approximately 5 minutes. Don't touch the Adhesion Promoter.

completely dry through evaporation of the solvent with radiant heat, hot air dryers, or with time before bonding acrylic adhesive

4. Application of Adhesive Backed Part to the Substrate: Remove the protective release liner from the acrylic tape immediately prior to applying the part to be bonded, being careful not to contaminate the acrylic adhesive. Apply within 15 minutes after surface preparation. Apply the part to be bonded without entrapping air between the tape and the substrate with a recommended minimum application pressure of 15 pounds per inch of tape width to achieve adhesive to substrate contact and maximum bond

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