



Flexbase™ T1401 Electronic Materials Halogen-Free Thermosetting Unsupported Bonding Adhesive

Description

Sheldahl Flexbase T1401 products use our proprietary halogen-free, thermosetting adhesive on a release liner, polyimide, or various foils. The adhesive can be reinforced using spun bond, woven, or non-woven fabrics. T1401 is a film adhesive specifically designed for heat activated metal-to-metal bonding. It can also be used in bonding dissimilar materials where high strength and good creep resistance are required, e.g., Copper-Polyimide, Copper-Ceramic and Fabric-Polyimide.

Features

- **Adhesive:** Halogen-free thermosetting, has excellent solvent, oil, and moisture resistance.
- **High Bond Strengths:** In excess of 5,000 lbs./in² shear.
- **Consistent:** Sheldahl's superior manufacturing process ensures consistent adhesive thickness control.
- **Processing:** Tack-free dry film allows easy positioning, no glue pot and no solvent.

Storage

Material stored in original packaging, at temperatures of 40-70°F (4-20°C), and below 50%RH will retain their properties for a minimum of 6 months. Excessive exposure to heat and moisture may cause reduced shelf-life.

Quality

Sheldahl products are manufactured using quality systems that conform to ISO, QS, and TS quality standards. Key product characteristics are tested and monitored in accordance to IPC standards. Certifications are available with product shipments.

Constructions

- **Adhesive Thickness:** 1 and 2mil (25 and 50µm)
- **Width:** Standard roll width is 24" (610mm)

Specialty thickness and widths available please contact your Sheldahl representative.

Contact Information:

USA: Telephone – 507-663-8344
Europe: Telephone – 33-387-847-477
Worldwide: Telephone – 507-663-8344

Come visit us at www.Sheldahl.com

Ordering Information:

When ordering please specify:

- Film thickness
- Adhesive type (flame-retardant or non flame-retardant)
- Adhesive thickness
- Adhesive on one side or both
- Roll width

T1401 - Thermosetting Structural Adhesive

TECHNICAL DATA			
Property	Test Specifications	Typical Values	Unit of Measure
Thickness	ASTM-D-374	0.001	Inches
Peel Aluminum to Aluminum*	ASTM-D-903	20	lbs./in.
Shear Aluminum to Aluminum*	ASTM-D-1002	5,000	lbs./in. ²
Shear Aluminum to Aluminum* (after 14 days 95% R.H., 35°C)	ASTM-D-1002	5,000	lbs./in. ²
Color		Green	
Liner		Poly-Coated Paper	

**Bonding prepared at 170°C, 100 psi, 30 minutes. Values will vary somewhat depending on the bonding parameters and the surface preparation.*

The information contained herein is based upon typical data, Sheldahl makes no warranties expressed or implied as to its accuracy and assumes no liability arising out of its use by others.

The user should determine suitability of Sheldahl materials for each individual application.

RECOMMENDED BONDING PROCEDURES

Non-porous surfaces must be free of grease, oil and dirt. Degreasing is recommended prior to bonding. Metals such as aluminum require a chemical cleaner.

Platen Press

Platen temperature	340 - 355°F	170 - 180°C
Pressure	50 - 200 PSI	3.5-14 bar
Time (cool under pressure)	30 min to 105°F	30 min to 40°C

T1401 can also be used as a thermoplastic adhesive by heating adhesive film to 170°C and cooling under pressure.

**Please note, actual values will depend on many factors including but not limited to: number of rollers, number of heated rollers, copper thickness and cable pitch, wrap angle of tape on heated rollers prior to lamination, run speed etc. Sheldahl suggests use of standard industry tests to confirm encapsulation and adhesion quality. Contact Sheldahl for assistance enhancing product performance.*