



## Flexbase™ T1612 Electronic Materials Halogen-Free Polyimide Modified Acrylic Adhesive Tape

### Description

Sheldahl Flexbase T1612 products use our proprietary halogen-free, high temperature, modified acrylic adhesive and polyimide film, creating a single or double sided composite. T1612 tapes are engineered for use in flex circuitry applications where soldering and temperature resistance are key. Sheldahl materials are able to be processed in rolls.

### Features

- **Dielectric:** High stability PI films.
- **Adhesive:** Halogen-free modified acrylic.
- **Stability:** Sheldahl's superior manufacturing process ensures consistent dimensional stability.
- **Processing:** High quality flexible circuits can be produced using standard manufacturing procedures.

### Storage

Material stored in original packaging, at temperatures of 40-80°F (4-26°C), and below 70% RH will retain their properties for a minimum of 1 year.

### Quality

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

### Constructions

- **Film Thickness:** 0.5, 1, 2, or 5 mils (12.5, 25, 50, 125 µm)
- **Adhesive Thickness:** 0.5 - 3mil (12.5 - 75µm)
- **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](http://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

### Lamination Conditions:

	SAE	Metric
<b>Platen temperature</b>	365-385°F	185-195°C
<b>Pressure</b>	300-400 PSI	21-28 kg/cm <sup>2</sup>
<b>Time (at temperature)</b>	50 - 60 min	50 - 60 min
<b>Cool under pressure</b>	≤ 120°F	≤ 48°C

*\*Oven-dry at 250-275 °F (120-135 °C) for >1 hour, prior to solder exposure.*

PROPERTY TO BE TESTED AND TEST METHOD	IPC Test Requirements	Sheldahl Typical Mean Value*																	
Dimensional Stability, maximum, percentage, IPC-TM-650, Method 2.2.4 Method A	0.20	0.06																	
Peel Strength, minimum, lb./in. - width, IPC-TM-650, Method 2.4.9 Method A as received Method B as received Method D After Solder Float Method F after temperature cycling	<table border="1"> <tr> <td>&lt;0.984 mil</td> <td>≥0.984 mil</td> </tr> <tr> <td>4.0</td> <td>8.0</td> </tr> <tr> <td>4.0</td> <td>8.0</td> </tr> <tr> <td>3.5</td> <td>8.0</td> </tr> <tr> <td>4.0</td> <td>7.5</td> </tr> <tr> <td></td> <td>8.0</td> </tr> </table>	<0.984 mil	≥0.984 mil	4.0	8.0	4.0	8.0	3.5	8.0	4.0	7.5		8.0	<table border="1"> <tr> <td>≥0.984 mil</td> </tr> <tr> <td>9.0</td> </tr> <tr> <td>12.0</td> </tr> <tr> <td>12.0</td> </tr> <tr> <td>12.0</td> </tr> </table>	≥0.984 mil	9.0	12.0	12.0	12.0
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Flow, maximum IPC-TM-650, Method 2.3.17.1	5:1	2.5:1																	
Volatile Content, maximum IPC-TM-650, Method 2.3.37	4.0	1.0																	
Chemical Resistance percentage, IPC-TM-650, Method 2.3.2, A	80%	90%																	
Solder Float, IPC-TM-650, Method 2.4.13, Method B	Pass	Pass																	
Dielectric constant, maximum (at 1MHz), IPC-TM-650, Method 2.5.5.3	4.0	3.75																	
Dissipation factor, maximum (at 1 MHz), IPC-TM-650, Method 2.5.3	0.040	0.03																	
Volume Resistivity, minimum megohm-cm, IPC-TM-650, Method 2.5.17	10 <sup>6</sup>	10 <sup>9</sup>																	
Surface resistance minimum, megohms, IPC-TM-650, Method 2.5.17	10 <sup>5</sup>	10 <sup>8</sup>																	
Dielectric strength, minimum V/μm (V/mil), ASTM-D-149	78.74 (2000)	(4000)																	
Fungus Resistance, IPC-TM-650, Method 2.6.1	Non-nutrient	Non-nutrient																	
Moisture Absorption, maximum, percent, IPC-TM-650, Method 2.6.2.	6.0%	4.5%																	
Moisture and Insulation Resistance, minimum, megohms, IPC-TM-650, Method 2.6.3.2	10 <sup>2</sup>	10 <sup>5</sup>																	

\*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.