



## Flexbase™ T1946 Electronic Materials Polyester Adhesive on PET Film

### Description

Sheldahl Flexbase T1946 products use our proprietary, polyester adhesive on PET film, creating a single or double-sided tape suitable for use in a variety of applications. T1946 has some flame-retardant properties, and is designed for use with Sheldahl G1802 or G1845 laminate. Sheldahl materials are able to be processed in rolls.

### Features

- **Adhesive:** Polyester.
- **Consistent:** Sheldahl's superior manufacturing process ensures consistent adhesive thickness control.
- **Processing:** T1946 is specifically formulated for coverlay of flexible circuitry and can be processed using standard manufacturing procedures.
- This information covers Sheldahl T900231, T900232, T900233, and T900234 products. These products have no FR properties.

### 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

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

PROPERTY	Test Method	TYPICAL DATA
Dimensional Stability, (maximum, %)	IPC-TM-650, 2.2.4, Method A	0 ± .70
Peel Strength, minimum, (lb./in. – width)	IPC-TM-650, 2.4.9	5.0
Volatile Content (maximum %)	IPC-TM-650, Method 2.3.37	1.5
Chemical Resistance	IPC-TM-650, 2.3.2, Method A	80%
Dielectric Constant, maximum (at 1MHz)	IPC-TM-650, Method 2.5.5.3	3.4
Dissipation Factor, maximum (at 1 GHz)	IPC-TM-650, Method 2.5.5.3	0.015
Volume Resistivity, (minimum ohm-cm)	IPC-TM-650, Method 2.5.17	1 x 10 <sup>17</sup>
Surface Resistance, (minimum, ohms/sq.)	IPC-TM-650, Method 2.5.17	5 x 10 <sup>11</sup>
Dielectric Strength, (minimum volts/mil)	ASTM-D-149	3000
Fungus Resistance	IPC-TM-650, Method 2.6.1	Non-Nutrient
Moisture Absorption, (maximum %)	IPC-TM-650, Method 2.6.2	0.8
Tensile Strength, (minimum lb./in. <sup>2</sup> )	ASTM-D-882	22,000
Tensile Modulus, (psi)	ASTM-D-882	500,000
Elongation, (minimum %)	ASTM-D-882	120
Initiation Tear Strength, (gms/mil)	IPC-TM-650, 2.4.16, Method A	250

\*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.

## Processing Recommendations

### Roll-to-roll Laminating

	SAE	Metric
Hot Roll Temperature	300 - 330°F	150 - 165°C
Pressure (minimum)	100 PSI	7 bar
Line Speed	5-15 FPM	1.5-5 M/min.

### Platen Press

Platen Temperature	300 - 330°F	150 - 165°C
Pressure	25 - 100 PSI	2-7 bar
Time (cool under pressure)	5 min to 105°F	5 min to 40°C

*\*Please note, actual values will depend on many factors including but not limited to: number of rollers, number of heated rollers, copper thickness, 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.*