

G1932 - Flexbase[®] Copper Polyimide Laminates RoHS Compliant Flame Retardant Modified Epoxy Adhesive

Description

Sheldahl Flexbase G1932 products use our proprietary high temperature, RoHS compliant flame retardant, modified epoxy adhesive to bond polyimide film and copper foil, creating single sided and double sided composites. G1932 laminates are engineered for use in flex circuitry applications that require the safety of a flame retardant system. Sheldahl materials are suitable for roll to roll processing.

Features

- **Dielectric:** High Stability PI films.
- **Adhesive:** RoHS compliant flame-retardant modified polyester epoxy.
- **Available Coppers:**
 - **RA:** Rolled-Annealed. RA foils are suitable for dynamic flexing applications.
 - **ED:** Electro-deposited high-ductility. EDHD foils are suited for general use and flex to install applications.
 - **ARNT:** As-Rolled Untreated. ARNT foils are valuable for high frequency applications that require a smooth copper surface on both sides.
- **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. Excessive exposure to heat and moisture may cause copper oxidation.

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.

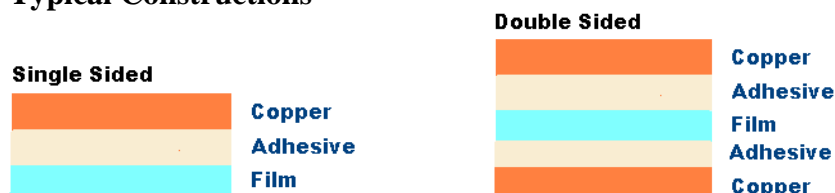
Certifications are available with product shipments.

Constructions

- **Film Thickness:** 1, 2, 5 mils (23, 50, 125 μm)
- **Copper Thickness:** ½, 1, 2 oz (18, 35, 70 μm)
- **Adhesive Thickness:** Standard thickness is 1.2mil (30μm)
- **Width:** Standard roll width is 12” (305mm) and 24” (610mm)

Specialty thicknesses and widths available; please contact your Sheldahl representative.

Typical Constructions



PROPERTY TO BE TESTED	Test Method (IPC-TM-650) unless noted	Sheldahl Typical Mean Value*
Dimensional Stability, maximum, percentage	2.2.4	
	Method B	0.06
	Method C	0.10
Peel Strength, minimum, lb./in. - width	2.4.9	
	Method A as rec'd	10.0
	Method B as rec'd	12.0
	Method D After Solder Float	9.0
	Method F After Temperature cycling	9.0
Low Temperature Flexibility, 5 Cycles	2.6.18	Pass
Chemical Resistance percentage	2.3.2 Method A	90%
Solder Float	2.4.13 Method B	Pass
Solderability	J-STD-003, Test A	Pass
Dielectric constant, maximum (at 1MHz),	2.5.5.3	3.5
Dissipation factor, maximum (at 1 MHz)	2.5.3	0.015
Volume Resistivity, minimum megohms-cm	2.5.17	107
Surface resistance minimum, megohms	2.5.17	105
Dielectric strength, minimum volts/mil	ASTM-D-149	3500
Fungus Resistance, IPC-TM-650	2.6.1	Non-Nutrient
Moisture Absorption, maximum, percent,	2.6.2	2.0
Moisture and Insulation Resistance, minimum, megohms	2.6.3.2	104

*The information contained herein is based upon typical data. Sheldahl makes no warranty 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.