SHELDAHL
A Multek Brand

BUS BOND®

Product Bulletin

T1649
Flame Retardant Modified Acrylic Unsupported Bonding Adhesive

Description

T1649 Bus Bond® free film adhesive uses our proprietary flame retardant, RoHS compliant, high temperature, modified acrylic adhesive on a carrier with a release liner, creating an isolated adhesive suitable for use as bonding-layer. T1649 tapes are engineered for use in busbar applications where temperature resistance is key.

Features

- PBDE-Free formulation meets current ROHS regulations.
- High bond strength provides superior adhesion to copper, aluminium and most plated metals.
- Low variation in adhesive thickness.
- Our products are manufactured using quality systems that conform to ISO, QS, and TS quality standards.
- Dry to the touch for ease of handling.

Constructions

- **Adhesive Thickness**: 0.5 - 2mil (12.5 - 50µm)
- **Width**: Standard roll width is 24” (610mm)
  *Specialty thickness and widths available. Please contact your Multek representative

Platen Press*

	SAE	Metric
Platen temperature	365 - 385°F	185 - 195°C
Pressure	300 - 400 PSI	21 - 28 bar
Time (at temperature)	50 - 60 min	50 - 60 min
Cool under pressure	< 120°F	< 48°C

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

Please note: appropriate values may depend on the design and stack up of the laminated busbar as well as the fabricating equipment.

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Technical Properties

PROPERTY	UNITS	TYPICAL VALUE		TEST METHOD
Peel Strength	lb./in (N/mm)	Shiny Cu 11.0(1.90) 11.0 (1.90) 10.0 (1.75)	Treated Cu 12.0 (2.10) 12.0 (2.10) 12.0 (2.10)	IPC-TM-650 2.4.9 Method A Method B Method D
Solder Float		Pass		IPC-TM-650 2.4.13, B
Dielectric constant (1 MHz)		3.75		IPC-TM-650 2.5.5.3
Dissipation factor (1MHz)		0.03		IPC-TM-650 2.5.3
Dielectric strength	V/mil (kV/mm)	2000 (78)		ASTM-D-149
Volatile Content	%	1.0		IPC-TM-650 2.3.37
Volume Resistivity	ohm/cm	10^9		IPC-TM-650 2.5.17
Surface resistance	ohm/sq.	10^8		IPC-TM-650 2.5.17
Chemical Resistance	%	90		IPC-TM-650 2.3.2, A
Fungus Resistance		Non-nutrient		IPC-TM-650 2.6.1
Flow		2:1		IPC-TM-650 2.3.17.1
Moisture Absorption, maximum	%	4.5		IPC-TM-650 2.6.2.

The information contained herein is based upon typical data. Multek 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, a Multek brand, for each individual application.

Storage and Shelf Life

Guaranteed shelf life and material warranty is 12 months from date of shipment when stored at 40-80°F (4-26°C) and below 70%RH.