

## T1615

### Non-Flame Retardant Modified Acrylic Adhesive Unsupported Bonding Adhesive

#### Description

T1615 products use our proprietary non-flame retardant, high temperature, modified acrylic adhesive on a release liner, creating an isolated adhesive suitable for use as bonding-layer. T1615 tapes are engineered for use in flex circuitry applications where soldering and temperature resistance are key. Sheldahl® Brand materials are able to be processed in rolls.

#### Features

- High bond strength provides superior adhesion to copper, tin, and standard FFC/FPC materials.
- Low variation in adhesive thickness simplifies production.
- High quality flexible circuits can be produced using standard manufacturing procedures
- Our 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: \*0.5 - 3mil (12.5 - 75µm)
  - Width: \*Standard roll width is 24" (610mm)
- \*Specialty thickness and widths available. Please contact your Sheldahl 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 |
| Cooling Under Pressure | < 120°F       | < 48°C      |

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

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### Technical Properties

| PROPERTY                     | UNITS         | TYPICAL VALUE                                        |                                                         | TEST METHOD                                          |
|------------------------------|---------------|------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|
| Peel Strength                | lb./in (N/mm) | Shiny Cu<br>11.0(1.90)<br>11.0 (1.90)<br>10.0 (1.75) | Treated Cu<br>12.0 (2.10)<br>12.0 (2.10)<br>12.0 (2.10) | IPC-TM-650 2.4.9<br>Method A<br>Method B<br>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 <sup>9</sup>                                      |                                                         | IPC-TM-650 2.5.17                                    |
| Surface resistance           | ohm/sq.       | 10 <sup>8</sup>                                      |                                                         | 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, 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 of Sheldahl® materials, a Flex company, 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.