# Arlon® 38N

Thermoplastic Polyimide

Arlon-MED

## Message:

38N is an improved polyimide low-flow prepreg suitable for bonding multilayer polyimide rigid-flex, attaching heat sinks to polyimide MLBs, or other applications where minimal and uniform resin flow is required.

| General Information | | | |
|---|---|---|---|
| Features | Bondability | | |
| | Fast Cure | | |
| | Good Electrical Properties | | |
| | Good Thermal Stability | | |
| | Low (to None) Lead Content | | |
| | Low Flow | | |
| Uses | Bonding | | |
| RoHS Compliance | RoHS Compliant | | |
| Forms | Liquid | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Water Absorption (24 hr) | < 1.0 | % | Internal Method |
| Decomposition Temperature | | | Internal Method |
| 5% | 330 | °C | |
| Intial | 311 | °C | |
| Peel Strength | | | Internal Method |
| -- [1] | 1.5 | kN/m | |
| to Kapton [2] | 1.0 | kN/m | |
| to Kapton [3] | 0.9 | kN/m | |
| Expansion Rate (50 to 260°C) [4] | 1.5 | % | Internal Method |
| T260 | 50.0 | min | Internal Method |
| T288 | 5.0 | min | Internal Method |
| T300 | 3.0 | min | Internal Method |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | 221 | MPa | Internal Method |
| Flexural Strength | 414 | MPa | Internal Method |
| Poisson's Ratio [5] | 0.17 | | ASTM D3039 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Glass Transition Temperature | 200 | °C | Internal Method |
| CLTE - Flow | | | |
| -- [6] | 1.7E-5 | cm/cm/°C | Internal Method |
| < 200°C [7] | 5.4E-5 | cm/cm/°C | Internal Method |

| | | | |
|---|---|---|---|
| > 200°C [8] | 1.6E-4 | cm/cm/°C | Internal Method |
| Thermal Conductivity (100°C) | 0.30 | W/m/K | ASTM E1461 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | | | Internal Method |
| -- [9] | 1.2E+15 | ohms | |
| -- [10] | 4.4E+12 | ohms | |
| Volume Resistivity | | | Internal Method |
| -- [11] | 4.7E+15 | ohms·cm | |
| -- [12] | 8.2E+13 | ohms·cm | |
| Dielectric Strength | 63 | kV/mm | Internal Method |
| Dielectric Constant (1 MHz) | 4.25 | | Internal Method |
| Dissipation Factor (1 MHz) | 0.010 | | Internal Method |
| Arc Resistance | 125 | sec | Internal Method |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | V-0 | | UL 94 |
| **NOTE** | | | |
| 1. | After Thermal Stress | | |
| 2. | As Recieved | | |
| 3. | After Solder | | |
| 4. | Z-axis | | |
| 5. | x and y direction | | |
| 6. | X-axis | | |
| 7. | Z-axis | | |
| 8. | Z-axis | | |
| 9. | E24/125 | | |
| 10. | C96/35/90 | | |
| 11. | E24/125 | | |
| 12. | C96/35/90 | | |



Recommended distributors for this material

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