

Solef® 5130

polyvinylidene fluoride

Solef® 5130 PVDF is an ultra high viscosity grade that gives the best adhesion ideal for its usage in lithium batteries.

General

| | | |
|-----------------|--|------------------------------------|
| Material Status | • Commercial: Active | |
| Availability | • Africa & Middle East • Asia Pacific • Europe | • Latin America • North America |
| Features | • Good Adhesion | • Ultra High Viscosity |
| Uses | • Batteries • Binder | |

| Physical | Typical Value | Unit | Test method |
|---|---------------|-------------------|-------------|
| Density | 1.75 to 1.78 | g/cm ³ | ISO 1183 |
| Water Absorption ¹ (24 hr, 23°C) | < 0.20 | % | ASTM D543 |

| Mechanical | Typical Value | Unit | Test method |
|-------------------------------------|---------------|------|-------------|
| Tensile Modulus ² (23°C) | 1000 to 1500 | MPa | ASTM D638 |

| Thermal | Typical Value | Unit | Test method |
|--|---------------|------|-------------|
| Glass Transition Temperature | -40.0 | °C | DSC |
| Melting Temperature | 160 to 168 | °C | ASTM D3418 |
| Peak Crystallization Temperature (DSC) | 135 to 140 | °C | ASTM D3418 |
| Heat of Fusion ³ | 40.0 to 48.0 | J/g | ASTM D3418 |
| Thermal Stability ⁴ | > 375 | °C | TGA |

| Electrical | Typical Value | Unit | Test method |
|----------------------------------|---------------|---------|-------------|
| Surface Resistivity ⁵ | > 1.0E+14 | ohms | ASTM D257 |
| Volume Resistivity ⁶ | > 1.0E+14 | ohms·cm | ASTM D257 |

Additional Information

Intrinsic Viscosity: 0.27 - 0.37 l/g



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Notes

Typical properties: these are not to be construed as specifications.

¹ 30g

² 1.0 mm/min

³ 80°C to end of melting

⁴ @ 1% weight loss

⁵ Voltage < 1V, after 2 min - 500 V @ 23°C

⁶ Intensity = 10 mA, after 2 min @ 23°C

