NORYL[™] WCP921A resin

Polyphenylene Ether + TPE

SABIC Innovative Plastics

Message:

Flexible NORYL injection molding grade. Low specific gravity with good non-halogenated flame retardant performance. Developed for overmolding applications such as plugs, strain reliefs, and connectors. UL 94 V-0 performance with good processability. GreenScreen Approved.

| General Information | | | |
|---|---------------------|----------|--------------|
| Features | Flame Retardant | | |
| | Good Flexibility | | |
| | Good Processability | | |
| | Halogen Free | | |
| | Low Density | | |
| | | | |
| Uses | Connectors | | |
| | Overmolding | | |
| | Plugs | | |
| | Strain Reliefs | | |
| | | | |
| Processing Method | Injection Molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.04 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) | | | ASTM D1238 |
| 210°C/5.0 kg | 12 | g/10 min | |
| 250°C/2.16 kg | 10 | g/10 min | |
| Molding Shrinkage | | | ASTM D955 |
| Flow : 24 hr | 0.40 | % | |
| Across Flow : 24 hr | 0.40 | % | |
| Water Absorption ¹ (23°C, 24 hr) | 0.10 | % | ASTM D570 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (Shore A, 30 sec) | 92 | | ASTM D2240 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength | | | |
| Break ² | 9.00 | MPa | ASTM D638 |
| Break | 9.00 | MPa | ISO 527-2/50 |
| Tensile Elongation | | | |
| Break ³ | 120 | % | ASTM D638 |
| Break | 120 | % | ISO 527-2/50 |
| Flexural Modulus ⁴ | | | |
| 100 mm Span | 110 | MPa | ASTM D790 |
| | | | |

| | 110 | MPa | ISO 178 |
|--|----------------------------|---------|----------------|
| Thermal | Nominal Value | Unit | Test Method |
| Brittleness Temperature | < -40.0 | °C | ASTM D746 |
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | 4.0E+15 | ohms∙cm | ASTM D257 |
| Electric Strength (2.00 mm, in Oil) | 23 | kV/mm | IEC 60243-1 |
| Relative Permittivity (1 MHz) | 2.80 | | IEC 60250 |
| Dissipation Factor (1 MHz) | 6.0E-3 | | IEC 60250 |
| Comparative Tracking Index | 600 | V | IEC 60112 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (6.00 mm) | V-0 | | UL 94 |
| Glow Wire Flammability Index (3.00 mm) | 850 | °C | IEC 60695-2-12 |
| Glow Wire Ignition Temperature (3.00 mm) | 775 | °C | IEC 60695-2-13 |
| Oxygen Index | 24 | % | ISO 4589-2 |
| Injection | Nominal Value | Unit | |
| Drying Temperature | 60.0 to 80.0 | °C | |
| Drying Time | 4.0 to 6.0 | hr | |
| Drying Time, Maximum | 8.0 | hr | |
| Suggested Max Moisture | 0.010 | % | |
| Suggested Shot Size | 30 to 70 | % | |
| Rear Temperature | 180 to 220 | °C | |
| Middle Temperature | 210 to 240 | °C | |
| Front Temperature | 220 to 250 | °C | |
| Nozzle Temperature | 220 to 250 | °C | |
| Processing (Melt) Temp | 220 to 250 | °C | |
| Mold Temperature | 40.0 to 60.0 | °C | |
| Back Pressure | 3.00 to 10.0 | MPa | |
| Screw Speed | 30 to 80 | rpm | |
| Vent Depth | 0.030 to 0.050 | mm | |
| NOTE | | | |
| 1. | Results measured at 48 hrs | | |
| 2. | Type I, 50 mm/min | | |
| 3. | Type I, 50 mm/min | | |
| 4. | 13 mm/min | | |

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