Axiall PVC NR-5009

Rigid Polyvinyl Chloride

Axiall Corporation

Message:

Georgia Gulf NR-5009 is a high flow rigid, fitting-grade vinyl compound designed for small gated, thin walled parts. The compound is characterized by excellent processability, which includes color hold, regrind stability, and surface appearance. NR-5009 is NSF listed for DMV and pressure fittings applications.

| General Information | | | |
|-------------------------------|----------------------|-------|-------------|
| UL YellowCard | E53006-243377 | | |
| Features | Workability, good | | |
| | Good color stability | | |
| | High liquidity | | |
| | Excellent appearance | | |
| | | | |
| Uses | Thin wall parts | | |
| | Accessories | | |
| | | | |
| Agency Ratings | NSF 14 | | |
| | NSF 61 | | |
| | | | |
| UL File Number | E53006 | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.39 | g/cm³ | ASTM D792 |
| Molding Shrinkage - Flow | 0.20 - 0.30 | % | ASTM D955 |
| PVC Cell Classification | 12454-B | | ASTM D1784 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 115 | | ASTM D785 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 2830 | MPa | ASTM D638 |
| Tensile Strength | 50.3 | MPa | ASTM D638 |
| Flexural Modulus | 2900 | MPa | ASTM D790 |
| Flexural Strength | 89.6 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| -20°C, 3.18 mm | 37 | J/m | ASTM D256 |
| 23°C, 3.18 mm | 59 | J/m | ASTM D256 |
| Dart Drop Impact (23°C) | 36.2 | J | ASTM D3029 |
| Drop Impact Resistance (23°C) | 116 | J/cm | ASTM D4226 |

| Thermal | Nominal Value | Unit | Test Method |
|--------------------------------------|------------------------------------|---------|-------------|
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, not annealed | 75.0 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 71.0 | °C | ASTM D648 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating | V-0 | | UL 94 |
| Oxygen Index | 38 | % | ASTM D2863 |
| Additional Information | | | |
| Flow Ratio, Georgia Gulf Test Method | , Distance/Wall Thickness, 390-400 | °F: 170 | |
| Injection | Nominal Value | Unit | |
| Drying Temperature | 65.6 | °C | |
| Drying Time | 2.0 - 4.0 | hr | |
| Drying Time, Maximum | 6.0 | hr | |
| Suggested Shot Size | 35 - 75 | % | |
| Suggested Max Regrind | 50 | % | |
| Rear Temperature | 163 | °C | |
| Middle Temperature | 174 - 191 | °C | |
| Front Temperature | 182 - 193 | °C | |
| Nozzle Temperature | 177 - 193 | °C | |
| Processing (Melt) Temp | 202 - 210 | °C | |
| Mold Temperature | 15.6 - 48.9 | °C | |
| Injection Pressure | 82.7 - 138 | MPa | |
| Holding Pressure | 48.3 - 82.7 | MPa | |
| Back Pressure | 0.345 - 1.38 | MPa | |
| Screw Speed | 25 - 80 | rpm | |
| Clamp Tonnage | 3.4 | kN/cm² | |
| Screw L/D Ratio | 16.0:1.0 to 24.0:1.0 | | |
| Screw Compression Ratio | 1.5:1.0 to 2.5:1.0 | | |
| | | | |

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