

Starex SR-0320 K

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Uses • Automotive Applications • Electrical/Electronic Applications

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|------------------|-----------------------|--------------|
| Density / Specific Gravity (Natural) | 1.06 | | ASTM D792 |
| Density (Natural) | 1.06 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 9.0 | g/10 min | ASTM D1238 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 9.0 | g/10 min | ISO 1133 |
| Molding Shrinkage - Flow (0.126 in) | 4.0E-3 to 7.0E-3 | in/in | ASTM D955 |
| Molding Shrinkage - Across Flow (0.126 in) | 4.0E-3 to 7.0E-3 | in/in | ASTM D955 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow : 0.0787 in | 0.40 to 0.70 | % | |
| Flow : 0.0787 in | 0.40 to 0.70 | % | |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus ² | 341000 | psi | ASTM D638 |
| Tensile Modulus | 348000 | psi | ISO 527-1/50 |
| Tensile Strength ² (Yield) | 6680 | psi | ASTM D638 |
| Tensile Stress (Yield) | 7250 | psi | ISO 527-2/50 |
| Tensile Strength ² (Break) | 6120 | psi | ASTM D638 |
| Tensile Stress (Break) | 6380 | psi | ISO 527-2/50 |
| Tensile Elongation ² (Break) | 20 | % | ASTM D638 |
| Tensile Strain (Break) | 20 | % | ISO 527-2/50 |
| Flexural Modulus ³ | 341000 | psi | ASTM D790 |
| Flexural Modulus ⁴ | 348000 | psi | ISO 178 |
| Flexural Strength ³ | 10500 | psi | ASTM D790 |
| Flexural Stress ⁴ | 10700 | psi | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength ⁵ (73°F) | 8.1 | ft-lb/in ² | ISO 179/1eA |
| Notched Izod Impact | | | ASTM D256 |
| 73°F, 0.125 in | 3.5 | ft-lb/in | |
| 73°F, 0.250 in | 3.1 | ft-lb/in | |
| Notched Izod Impact Strength ⁵ (73°F) | 8.1 | ft-lb/in ² | ISO 180/1A |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 110 | | ASTM D785 |
| Rockwell Hardness (R-Scale) | 110 | | ISO 2039-2 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi, Unannealed, 0.252 in | 203 | °F | |
| Deflection Temperature Under Load | | | ISO 75-2/A |
| 264 psi, Unannealed, 0.157 in | 183 | °F | |

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| Thermal | Nominal Value | Unit | Test Method |
|-----------------------------|---------------|------|-------------|
| Vicat Softening Temperature | 223 | °F | ISO 306/B50 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | | |
| Desiccant Dryer | 194 | °F |
| Hot Air Dryer | 194 | °F |
| Drying Time | | |
| Desiccant Dryer | 3.0 to 4.0 | hr |
| Hot Air Dryer | 4.0 | hr |
| Suggested Max Moisture | < 0.10 | % |
| Rear Temperature | 374 to 401 | °F |
| Middle Temperature | 401 to 437 | °F |
| Front Temperature | 437 to 473 | °F |
| Nozzle Temperature | 446 to 500 | °F |
| Mold Temperature | 104 to 176 | °F |
| Injection Pressure | 7110 to 21300 | psi |
| Back Pressure | 71.1 to 284 | psi |
| Screw Speed | 50 to 150 | rpm |

Injection Notes

Hot Runner Temperature: 230 to 260°C