

Starex WR-9330I

Acrylonitrile Styrene Acrylate

LOTTE ADVANCED MATERIALS CO., LTD.

PROSPECTOR[®]

www.ulprospector.com

Technical Data

Product Description

Starex WR-9330I is an Acrylonitrile Styrene Acrylate (ASA) product. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Typical application: Automotive.

General

| | |
|-----------------------------|---|
| Material Status | • Commercial: Active |
| Literature ¹ | • Processing (English) • Technical Information - ASTM (English) • Technical Information - ISO (English) |
| UL Yellow Card ² | • E115797-219514 |
| Search for UL Yellow Card | • LOTTE ADVANCED MATERIALS CO., LTD. • Starex |
| Availability | • Africa & Middle East • Asia Pacific • Europe • Latin America • North America |
| Automotive Specifications | • GM QK 000242 Type A Color: Natural • HYUNDAI MS225-22 T2 • RENAULT SM 200-01 AAS-IB2-2 |

Physical

| | Nominal Value Unit | Test Method |
|---|------------------------|------------------------|
| Density / Specific Gravity (Natural) | 1.07 g/cm ³ | ASTM D792 ISO 1183 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 5.0 g/10 min | ASTM D1238 ISO 1133 |
| Molding Shrinkage | | |
| Flow : 3.20 mm | 0.40 to 0.70 % | ASTM D955 |
| Across Flow : 3.20 mm | 0.40 to 0.70 % | ASTM D955 |
| Across Flow : 2.00 mm | 0.40 to 0.70 % | ISO 294-4 |
| Flow : 2.00 mm | 0.40 to 0.70 % | ISO 294-4 |

Mechanical

| | Nominal Value Unit | Test Method |
|--------------------|--------------------|--------------|
| Tensile Modulus | | |
| -- ⁴ | 2100 MPa | ASTM D638 |
| -- | 2400 MPa | ISO 527-2/50 |
| Tensile Strength | | |
| Yield ⁴ | 47.0 MPa | ASTM D638 |
| Yield | 52.0 MPa | ISO 527-2/50 |
| Tensile Elongation | | |
| Break ⁴ | 17 % | ASTM D638 |
| Break | 11 % | ISO 527-2/50 |
| Flexural Modulus | | |
| -- ⁵ | 2300 MPa | ASTM D790 |
| -- ⁶ | 2400 MPa | ISO 178 |
| Flexural Strength | | |
| -- ⁵ | 70.0 MPa | ASTM D790 |
| -- ⁶ | 80.0 MPa | ISO 178 |

Impact

| | Nominal Value Unit | Test Method |
|--|-----------------------|-------------|
| Charpy Notched Impact Strength ⁷ (23°C) | 10 kJ/m ² | ISO 179/1eA |
| Notched Izod Impact | | |
| 23°C, 3.18 mm | 140 J/m | ASTM D256 |
| 23°C ⁷ | 9.0 kJ/m ² | ISO 180/1A |

Hardness

| | Nominal Value Unit | Test Method |
|-------------------|--------------------|-------------|
| Rockwell Hardness | | |
| R-Scale | 107 | ASTM D785 |
| R-Scale | 108 | ISO 2039-2 |



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| Thermal | Nominal Value Unit | Test Method |
|-------------------------------|--------------------|-------------|
| Heat Deflection Temperature | | |
| 0.45 MPa, Unannealed, 4.00 mm | 97.0 °C | ISO 75-2/B |
| 0.45 MPa, Annealed, 4.00 mm | 107 °C | ISO 75-2/B |
| 1.8 MPa, Unannealed, 4.00 mm | 82.0 °C | ISO 75-2/A |
| 1.8 MPa, Annealed, 4.00 mm | 103 °C | ISO 75-2/A |
| Vicat Softening Temperature | 104 °C | ISO 306/B50 |

| Injection | Nominal Value Unit |
|------------------------|--------------------|
| Drying Temperature | |
| Desiccant Dryer | 75 to 85 °C |
| Hot Air Dryer | 75 to 85 °C |
| Drying Time | |
| Desiccant Dryer | 2.0 to 4.0 hr |
| Hot Air Dryer | 2.0 to 4.0 hr |
| Suggested Max Moisture | 0.050 % |
| Rear Temperature | 190 to 205 °C |
| Middle Temperature | 205 to 225 °C |
| Front Temperature | 225 to 245 °C |
| Nozzle Temperature | 245 °C |
| Mold Temperature | 50 to 70 °C |
| Injection Pressure | 98.1 MPa |
| Back Pressure | 0.981 to 1.96 MPa |
| Screw Speed | 50 to 90 rpm |

Injection Notes

Hot Runner Temperature: 230 to 260°C

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 5.0 mm/min

⁵ 2.8 mm/min

⁶ 2.0 mm/min

⁷ 4mm

