

Schulaketon MV

Polyketone, Aliphatic
LyondellBasell Industries
Engineering Plastics

Product Description
Medium viscosity aliphatic Polyketon

| General | | | |
|---------------------|--|-----------------------------|-----------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Processing Method | • Extrusion • Injection Molding | | |
| Resin ID (ISO 1043) | • PK | | |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|----------------------------|----------------------------|-------------|
| Density | 1.24 g/cm ³ | 1.24 g/cm ³ | ISO 1183/A |
| Melt Volume-Flow Rate (MVR) (240°C/2.16 kg) | 6.0 cm ³ /10min | 6.0 cm ³ /10min | ISO 1133 |

| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------|-------------------------|--------------------|-----------------|
| Tensile Modulus | 232000 psi | 1600 MPa | ISO 527-1/1A/1 |
| Tensile Stress (Yield) | 8700 psi | 60.0 MPa | ISO 527-2/1A/50 |
| Tensile Strain (Yield) | 20 % | 20 % | ISO 527-2/1A/50 |
| Flexural Modulus ¹ | 247000 psi | 1700 MPa | ISO 178 |
| Flexural Stress ¹ | | | ISO 178 |
| 9.0% Strain | 8700 psi | 60.0 MPa | |
| 3.5% Strain | 8700 psi | 60.0 MPa | |

| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------------|---------------------------|-----------------------|-------------|
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -40°F (-40°C) | 1.4 ft·lb/in ² | 3.0 kJ/m ² | |
| 73°F (23°C) | 7.6 ft·lb/in ² | 16 kJ/m ² | |
| Charpy Unnotched Impact Strength | | | |
| -40°F (-40°C) | No Break | No Break | ISO 179 |
| 73°F (23°C) | No Break | No Break | ISO 179/1eU |

| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load | | | |
| 66 psi (0.45 MPa), Unannealed | 352 °F | 178 °C | ISO 75-2/Bf |
| 264 psi (1.8 MPa), Unannealed | 181 °F | 83.0 °C | ISO 75-2/Af |
| Vicat Softening Temperature | | | |
| -- | 369 °F | 187 °C | ISO 306/B50 |
| -- | 417 °F | 214 °C | ISO 306/A50 |
| RTI Elec | | | UL 746B |
| 0.031 in (0.8 mm) | 122 °F | 50.0 °C | |
| 0.06 in (1.6 mm) | 122 °F | 50.0 °C | |
| 0.12 in (3.0 mm) | 122 °F | 50.0 °C | |
| RTI Imp | | | UL 746B |
| 0.031 in (0.8 mm) | 122 °F | 50.0 °C | |
| 0.06 in (1.6 mm) | 122 °F | 50.0 °C | |
| 0.12 in (3.0 mm) | 122 °F | 50.0 °C | |
| RTI Str | | | UL 746B |
| 0.031 in (0.8 mm) | 122 °F | 50.0 °C | |
| 0.06 in (1.6 mm) | 122 °F | 50.0 °C | |
| 0.12 in (3.0 mm) | 122 °F | 50.0 °C | |

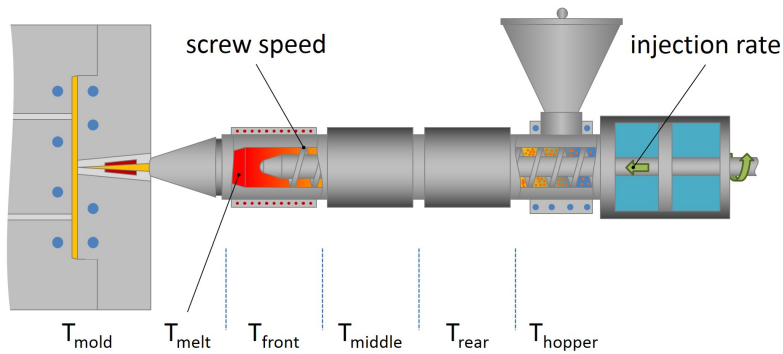
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| Electrical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|-------------------------|--------------------|----------------------------------|
| Surface Resistivity | > 1.0E+15 ohms | > 1.0E+15 ohms | IEC 60093 |
| Volume Resistivity | > 1.0E+13 ohms·m | > 1.0E+13 ohms·m | IEC 62631-3-1 |
| Comparative Tracking Index (Solution A) | 600 V | 600 V | IEC 60112 |
| Flammability | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Burning Rate | | | |
| 0.0787 in (2.00 mm) | < 3.9 in/min | < 100 mm/min | ISO 3795 |
| 0.0787 in (2.00 mm) | < 3.9 in/min | < 100 mm/min | FMVSS 302 |
| Flame Rating | | | |
| 0.031 in (0.8 mm) | HB | HB | UL 94 |
| 0.06 in (1.6 mm) | HB | HB | UL 94 IEC 60695-11-10, -20 |
| 0.13 in (3.2 mm) | HB | HB | UL 94 |
| 0.03 in (0.8 mm) | HB | HB | IEC 60695-11-10, -20 |
| 0.12 in (3.0 mm) | HB | HB | IEC 60695-11-10, -20 |
| Glow Wire Flammability Index | | | |
| 0.06 in (1.5 mm) | 1290 °F | 700 °C | IEC 60695-2-12 |
| 0.12 in (3.0 mm) | 1290 °F | 700 °C | |
| Glow Wire Ignition Temperature | | | |
| 0.06 in (1.5 mm) | 1340 °F | 725 °C | IEC 60695-2-13 |
| 0.12 in (3.0 mm) | 1340 °F | 725 °C | |

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| Injection | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature | 176 °F | 80 °C |
| Drying Time | 3.0 to 4.0 hr | 3.0 to 4.0 hr |
| Suggested Max Moisture | 0.15 % | 0.15 % |
| Processing (Melt) Temp | 437 to 464 °F | 225 to 240 °C |
| Mold Temperature | 140 to 248 °F | 60 to 120 °C |

Injection Notes

Before start, nozzle, screw, barrel and hot-runner have to be cleaned with Polyolefin. Contamination of other material leads to degradation or crosslinking of SCHULAKETON®.

Avoid shut down for more than 15 minutes at moulding temperature, because of degradation and crosslinking of SCHULAKETON®. Purge with Polyolefin!

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Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affect the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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