

Product Texts

NORYL™ LS6010 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This high performance, injection moldable and extrudable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 1.5mm. NORYL LS6010 resin features low smoke production upon burning, high heat resistance, very low specific gravity, enhanced resistance to melting and dripping and meets the requirements of FAR 25.853. In addition, this material is heat stabilized and impact modified. It is an excellent candidate for aerospace interior applications such as rub strips, seat track covers, cable guides, switch panels, conduit, wall/ceiling mounted electronics, and parts machined from slab stock.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|-------------------------------------|-------|------------------------|---------------|
| ISO Data | | | |
| Melt volume-flow rate, MVR | 5 | cm ³ /10min | ISO 1133 |
| Temperature | 280 | °C | - |
| Load | 5 | kg | - |
| ASTM Data | | | |
| Melt Flow Index, MFI | 5.6 | g/10min | ASTM D 1238 |
| Temperature | 280 | °C | - |
| Load | 5 | kg | - |

| Mechanical properties | Value | Unit | Test Standard |
|--|-------|-------------------|---------------|
| ISO Data | | | |
| Tensile Modulus | 2440 | MPa | ISO 527 |
| Yield stress | 64 | MPa | ISO 527 |
| Yield strain | 4.7 | % | ISO 527 |
| Stress at break | 58 | MPa | ISO 527 |
| Strain at break | 8.3 | % | ISO 527 |
| Flexural modulus | 2360 | MPa | ISO 178 |
| Charpy notched impact strength, +23°C | 20 | kJ/m ² | ISO 179/1eA |
| Izod notched impact strength, +23°C, 4mm | 18 | kJ/m ² | ISO 180/1A |
| Izod notched impact strength, -30°C, 4mm | 14 | kJ/m ² | ISO 180/1A |
| ASTM Data | | | |
| Tensile Modulus | 2220 | MPa | ASTM D 638 |
| Tensile Strength at Yield | 64 | MPa | ASTM D 638 |
| Tensile Strength at Break | 53 | MPa | ASTM D 638 |
| Elongation at Yield | 4.6 | % | ASTM D 638 |
| Elongation at Break | 20 | % | ASTM D 638 |
| Flexural Modulus | 2390 | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | 300 | J/m | ASTM D 256 |
| Izod Impact notched, Low-Temperature | 181 | J/m | ASTM D 256 |
| Temperature | -30 | °C | - |

| Thermal properties | Value | Unit | Test Standard |
|--|-------|------|---------------|
| ISO Data | | | |
| Temp. of deflection under load, 1.80 MPa | 124 | °C | ISO 75-1/-2 |
| Vicat softening temperature, B | 143 | °C | ISO 306 |
| Vicat softening temperature, 120°C/h 50N | 146 | °C | ISO 306 |
| ASTM Data | | | |
| DTUL @ 264 psi | 122 | °C | ASTM D 648 |
| Vicat Temperature | 143 | °C | ASTM D 1525 |

| Other properties | Value | Unit | Test Standard |
|---------------------|-------|-------------------|----------------|
| Water absorption | 0.2 | % | Sim. to ISO 62 |
| Humidity absorption | 0.05 | % | Sim. to ISO 62 |
| Density | 1110 | kg/m ³ | ISO 1183 |
| Density | 1110 | kg/m ³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature | 95 - 105 | °C | - |
| Pre-drying - Time | 2 - 4 | h | - |
| Melt temperature | 280 - 305 | °C | - |

NORYL™ Resin LS6010 - Europe

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

| | | | |
|------------------|------------------|-----|---|
| Mold temperature | 65 - 100 | °C | - |
| Zone 1 | 280 - 295 | °C | - |
| Zone 2 | 290 - 300 | °C | - |
| Zone 3 | 295 - 305 | °C | - |
| Screw speed | 40 - 80 | rpm | - |

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion

Applications

Automotive

Additives

Flame retarding agent

Regional Availability

Europe

Special Characteristics

Flame retardant, High impact or impact modified