**JPSANGI**

SAN with excellent balance of chemical resistance, physical properties, practical toughness

**Typical Material Properties**

|  |  |  |
| --- | --- | --- |
| General |  |  |
| Material Status | Commercial: Active |  |
| Availability | North America |  |
| Appearance | Light Blue | Natural Color |
| Forms | Pellets |  |
| Processing Method | Extrusion | Injection Molding |

|  |  |  |
| --- | --- | --- |
| Physical Properties | Nominal Values | Test Method |
| Specific Gravity | 1.07  | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (230°C/3.8 kg) | 8.0 g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow  | 3.0E-3 to 7.0E-3 in/in | ASTM D955 |

|  |  |  |
| --- | --- | --- |
| Hardness |  |  |
| Rockwell Hardness (R-Scale) | 125  | ASTM D785 |

|  |  |  |
| --- | --- | --- |
| Mechanical Properties |  |  |
| Tensile Modulus (0.125 in) | 503000 psi | ASTM D638 |
| Tensile Strength |    | ASTM D638 |
| Yield, 0.125 in | 10400 psi |   |
| Break, 0.125 in | 10400 psi |   |
| Tensile Elongation (Break, 0.125 in) | 2.5 % | ASTM D638 |
| Flexural Modulus (0.125 in) | 561000 psi | ASTM D790 |
| Flexural Strength (Yield, 0.125 in) | 17900 psi | ASTM D790 |

|  |  |  |
| --- | --- | --- |
| Impact |  |  |
| Notched Izod Impact (73°F, 0.125 in |  0.30 ft·lb/in |  ASTM D256 |

|  |  |  |
| --- | --- | --- |
| Thermal |  |  |
| Deflection Temperature Under Load |    | ASTM D648 |
| 66 psi, Unannealed, 0.125 in | 206 °F |   |
| 66 psi, Annealed, 0.125 in | 215 °F |   |
| 264 psi, Unannealed, 0.125 in | 186 °F |   |
| 264 psi, Annealed, 0.125 in | 209 °F |   |
| Vicat Softening Temperature | 227 °F | ASTM D1525 |
| CLTE - Flow  | 3.3E-5 in/in/°F | ASTM D696 |

|  |  |  |
| --- | --- | --- |
| Flammability |  |  |
| Flame Rating | HB  | UL 94 |
| Oxygen Index | 19 % | ASTM D2863 |

|  |  |  |
| --- | --- | --- |
| Optical |  |  |
| Transmittance | 89.0 % | ASTM D1003 |
| Haze | 0.60 % | ASTM D1003 |

|  |  |  |
| --- | --- | --- |
| Injection | Nominal Value |  |
| Drying Temperature | 160 to 180 °F |   |
| Drying Time | 2.0 to 4.0 hr |   |
| Suggested Max Moisture | 0.10 % |   |
| Rear Temperature | 400 °F |   |
| Middle Temperature | 425°F |   |
| Front Temperature | 450 °F |   |
| Nozzle Temperature | 440 °F |   |
| Processing (Melt) Temp | 390 to 450 °F |   |
| Mold Temperature | 80.0 to 120 °F |   |
| Injection Pressure | 5000 to 20000 psi |   |
| Back Pressure | 10.0 to 500 psi |   |
| Clamp Tonnage | 2.0 to 5.0 tons/in² |   |
| Screw L/D Ratio | 20.0:1.0 to 24.0:1.0  |   |
| Screw Compression Ratio | 1.5:1.0 to 2.0:1.0  |   |