# GELOY™ RESIN CR7520

REGION ASIA

## DESCRIPTION

ASA. Profile and Sheet. Excellent weatherability, good flow/aesthetics and high impact.

## TYPICAL PROPERTY VALUES

Revision 20190925

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 41 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 50 mm/min | 34 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 40 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 1790 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 58 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 1790 | MPa | ASTM D 790 |
| Hardness, Rockwell R | 86 | - | ASTM D 785 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 320 | J/m | ASTM D 256 |
| Izod Impact, notched, -30°C | 58 | J/m | ASTM D 256 |
| Instrumented Impact Total Energy, 23°C | 25 | J | ASTM D 3763 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 99 | °C | ASTM D 1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 87 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 76 | °C | ASTM D 648 |
| HDT, 1.82 MPa, annealed | 95 | °C | ASTM D 648 |
| HDT, 0.45 MPa, 6.4 mm, unannealed | 90 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 79 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 8.64E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 9.18E-05 | 1/°C | ASTM E 831 |
| CTE, -30°C to 0°C, flow | 8.46E-05 | 1/°C | ASTM E 831 |
| CTE, 0°C to 100°C, flow | 9.E-05 | 1/°C | ASTM E 831 |
| Relative Temp Index, Elec | 50 | °C | UL 746B |
| Relative Temp Index, Mech w/impact | 50 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact | 50 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.06 | - | ASTM D 792 |
| Water Absorption, equilibrium, 23C | 0.55 | % | ASTM D 570 |
| Mold Shrinkage, flow, 3.2 mm | 0.5 – 0.7 | % | SABIC method |
| Melt Flow Rate, 220°C/10.0 kgf | 7 | g/10 min | ASTM D 1238 |
| Melt Flow Rate, 260°C/5.0 kgf | 13 | g/10 min | ASTM D 1238 |
| OPTICAL | | | |
| Gloss, untextured, 60 degrees | 95 | - | ASTM D 523 |
| ELECTRICAL | | | |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Surface Resistivity | >1.E+15 | Ohm | ASTM D 257 |
| Dielectric Strength, in oil, 3.2 mm | 15.9 | kV/mm | ASTM D 149 |
| Relative Permittivity, 50/60 Hz | 5.2 | - | ASTM D 150 |
| Relative Permittivity, 1 MHz | 3.21 | - | ASTM D 150 |
| Dissipation Factor, 50/60 Hz | 0.15 | - | ASTM D 150 |
| Dissipation Factor, 1 MHz | 0.026 | - | ASTM D 150 |
| Hot Wire Ignition {PLC} | 3 | PLC Code | UL 746A |
| High Ampere Arc Ign, surface {PLC} | 0 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 0 | PLC Code | UL 746A |
| FLAME CHARACTERISTICS | | | |
| UL Yellow Card Link | E207780-100072245 | - | - |
| UL Recognized, 94HB Flame Class Rating | 1.47 | mm | UL 94 |
| UV-light, water exposure/immersion | F2 | - | UL 746C |
| INJECTION MOLDING | | | |
| Drying Temperature | 80 – 90 | °C | |
| Drying Time | 3 – 6 | hrs | |
| Drying Time (Cumulative) | 12 | hrs | |
| Maximum Moisture Content | 0.04 | % | |
| Melt Temperature | 240 – 270 | °C | |
| Nozzle Temperature | 240 – 270 | °C | |
| Front - Zone 3 Temperature | 240 – 270 | °C | |
| Middle - Zone 2 Temperature | 225 – 260 | °C | |
| Rear - Zone 1 Temperature | 220 – 250 | °C | |
| Mold Temperature | 55 – 75 | °C | |
| Back Pressure | 0.7 – 1.4 | MPa | |
| Screw Speed | 30 – 80 | rpm | |
| Shot to Cylinder Size | 40 – 80 | % | |
| Vent Depth | 0.038 – 0.076 | mm | |

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