

NORYL GTX™ RESIN GTX987

REGION ASIA

DESCRIPTION

Conductive GTX, CTE 7

TYPICAL PROPERTY VALUES

Revision 20180905

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|-------------------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 55 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 50 mm/min | 55 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 50 mm/min | 5 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 15 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 3250 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 95 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2700 | MPa | ASTM D 790 |
| Tensile Stress, yield, 50 mm/min | 62 | MPa | ISO 527 |
| Tensile Stress, break, 50 mm/min | 62 | MPa | ISO 527 |
| Tensile Strain, yield, 50 mm/min | 5 | % | ISO 527 |
| Tensile Strain, break, 50 mm/min | 20 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 3000 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 90 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 2800 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 90 | J/m | ASTM D 256 |
| Izod Impact, notched, -30°C | 70 | J/m | ASTM D 256 |
| Instrumented Impact Total Energy, 23°C | 10 | J | ASTM D 3763 |
| Izod Impact, notched 80°10*4 +23°C | 15 | kJ/m ² | ISO 180/1A |
| Izod Impact, notched 80°10*4 -30°C | 8 | kJ/m ² | ISO 180/1A |
| Charpy 23°C, V-notch Edgew 80°10*4 sp=62mm | 11 | kJ/m ² | ISO 179/1eA |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 192 | °C | ASTM D 1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 185 | °C | ASTM D 648 |
| CTE, -40°C to 60°C, flow | 5.5E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 60°C, xflow | 6.E-05 | 1/°C | ASTM E 831 |
| CTE, 23°C to 60°C, flow | 7.E-05 | 1/°C | ISO 11359-2 |
| CTE, 23°C to 60°C, xflow | 7.5E-05 | 1/°C | ISO 11359-2 |
| Vicat Softening Temp, Rate B/50 | 198 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/120 | 200 | °C | ISO 306 |
| HDT/Bf, 0.45 MPa Flatw 80°10*4 sp=64mm | 190 | °C | ISO 75/Bf |
| PHYSICAL | | | |
| Specific Gravity | 1.25 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm | 1 – 1.4 | % | SABIC method |
| Melt Flow Rate, 280°C/5.0 kgf | 8.5 | g/10 min | ASTM D 1238 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---------------------------------------|----------------|-------------------------|--------------|
| Density | 1.25 | g/cm ³ | ISO 1183 |
| Water Absorption, (23°C/sat) | 3 | % | ISO 62 |
| Moisture Absorption (23°C / 50% RH) | 0.9 | % | ISO 62 |
| Melt Volume Rate, MVR at 280°C/5.0 kg | 7 | cm ³ /10 min | ISO 1133 |
| INJECTION MOLDING | | | |
| Drying Temperature | 100 – 110 | °C | |
| Drying Time | 2 – 3 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 300 – 320 | °C | |
| Nozzle Temperature | 280 – 300 | °C | |
| Front - Zone 3 Temperature | 300 – 320 | °C | |
| Middle - Zone 2 Temperature | 280 – 300 | °C | |
| Rear - Zone 1 Temperature | 260 – 280 | °C | |
| Hopper Temperature | 80 – 100 | °C | |
| Mold Temperature | 100 – 120 | °C | |

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