

CYCOLOY™ RESIN T3RXC620W

MECHANICALLY RECYCLED ETP COMPOUND
REGION EUROPE

DESCRIPTION

CYCOLOY™ T3RXC620W resin is a PC/PET/ABS which is formulated with 30% post-consumer recycled PET. The material provides a good impact-flow balance, standard black. Typical applications include automotive exterior and interior trim.

TYPICAL PROPERTY VALUES

Revision 20260304

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yield, 50 mm/min | 48 | MPa | ISO 527 |
| Tensile Stress, break, 50 mm/min | 44 | MPa | ISO 527 |
| Tensile Strain, yield, 50 mm/min | 4 | % | ISO 527 |
| Tensile Strain, break, 50 mm/min | >100 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2100 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 71 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 2050 | MPa | ISO 178 |
| Tensile Stress, yld, Type I, 50 mm/min | 47 | MPa | ASTM D638 |
| Tensile Stress, brk, Type I, 50 mm/min | 44 | MPa | ASTM D638 |
| Tensile Strain, yld, Type I, 50 mm/min | 4 | % | ASTM D638 |
| Tensile Strain, brk, Type I, 50 mm/min | >100 | % | ASTM D638 |
| Tensile Modulus, 50 mm/min | 2050 | MPa | ASTM D638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 71 | MPa | ASTM D790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2050 | MPa | ASTM D790 |
| IMPACT | | | |
| Izod Impact, notched 80*10*4 +23°C | 55 | kJ/m ² | ISO 180/1A |
| Izod Impact, notched 80*10*4 0°C | 45 | kJ/m ² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -30°C | 20 | kJ/m ² | ISO 180/1A |
| Izod Impact, notched 80*10*3 +23°C | 55 | kJ/m ² | ISO 180/1A |
| Izod Impact, notched 80*10*3 -30°C | 30 | kJ/m ² | ISO 180/1A |
| Izod Impact, unnotched 80*10*4 +23°C | NB | kJ/m ² | ISO 180/1U |
| Izod Impact, unnotched 80*10*4 -30°C | NB | kJ/m ² | ISO 180/1U |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm | 65 | kJ/m ² | ISO 179/1eA |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 25 | kJ/m ² | ISO 179/1eA |
| Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm | NB | kJ/m ² | ISO 179/1eU |
| Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm | NB | kJ/m ² | ISO 179/1eU |
| Multi-Axial Instrumented Impact Total Energy, 23°C | 80 | J | ISO 6603-2 |
| Multi-Axial Instrumented Impact Total Energy, -30°C | 90 | J | ISO 6603-2 |
| Izod Impact, notched, 23°C | 750 | J/m | ASTM D256 |
| Izod Impact, unnotched, 23°C | NB | J/m | ASTM D4812 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 117 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/120 | 118 | °C | ISO 306 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------------|----------------|
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 86 | °C | ISO 75 /Af |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 110 | °C | ISO 75 /Bf |
| CTE, 23°C to 80°C, flow | 95 | 1/°C | ISO 11359-2 |
| CTE, 23°C to 80°C, xflow | 105 | 1/°C | ISO 11359-2 |
| Ball Pressure Test, 125°C +/- 2°C | PASS | - | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/50 | 117 | °C | ASTM D1525 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 72 | °C | ASTM D648 |
| CTE, -40°C to 40°C, flow | 95 | 1/°C | ASTM E831 |
| CTE, -40°C to 40°C, xflow | 105 | 1/°C | ASTM E831 |
| PHYSICAL | | | |
| Density | 1.19 | g/cm ³ | ISO 1183 |
| Moisture Absorption (23°C / 50% RH) | 0.1 | % | ISO 62 |
| Water Absorption, (23°C/saturated) | 0.6 | % | ISO 62-1 |
| Melt Volume Rate, MVR at 260°C/5.0 kg | 20 | cm ³ /10 min | ISO 1133 |
| Mold Shrinkage, flow | 0.6 – 0.8 | % | SABIC method |
| Mold Shrinkage, xflow | 0.6 – 0.8 | % | SABIC method |
| Specific Gravity | 1.19 | - | ASTM D792 |
| Moisture Absorption, (23°C/50% RH/24 hrs) | 0.1 | % | ASTM D570 |
| Water Absorption, (23°C/24hrs) | 0.2 | % | ASTM D570 |
| Melt Flow Rate, 260°C/5.0 kgf | 22 | g/10 min | ASTM D1238 |
| Melt Volume Rate, MVR at 265°C/5.0 kg | 20 | cm ³ /10 min | ASTM D1238 |
| INJECTION MOLDING | | | |
| Drying Temperature | 110 – 120 | °C | |
| Drying Time | 4 – 6 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 265 – 275 | °C | |
| Nozzle Temperature | 260 – 275 | °C | |
| Front - Zone 3 Temperature | 260 – 280 | °C | |
| Middle - Zone 2 Temperature | 250 – 275 | °C | |
| Rear - Zone 1 Temperature | 240 – 270 | °C | |
| Hopper Temperature | 60 – 80 | °C | |
| Mold Temperature | 60 – 100 | °C | |

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