

## XENOY™ RESIN 5220U

REGION EUROPE

### DESCRIPTION

Unreinforced PBT+PC Alloy. Impact Modified. Improved retention of mechanical properties under UV exposure. Excellent low temperature impact and chemical resistance.

### TYPICAL PROPERTY VALUES

Revision 20260509

| PROPERTIES                                  | TYPICAL VALUES | UNITS | TEST METHODS   |
|---------------------------------------------|----------------|-------|----------------|
| <b>MECHANICAL</b>                           |                |       |                |
| Tensile Stress, yield, 50 mm/min            | 50             | MPa   | ISO 527        |
| Tensile Strain, break, 50 mm/min            | 120            | %     | ISO 527        |
| Tensile Modulus, 1 mm/min                   | 2050           | MPa   | ISO 527        |
| Flexural Stress, yield, 2 mm/min            | 80             | MPa   | ISO 178        |
| Flexural Modulus, 2 mm/min                  | 2000           | MPa   | ISO 178        |
| <b>IMPACT</b>                               |                |       |                |
| Izod Impact, unnotched 80°10°4 +23°C        | NB             | kJ/m² | ISO 180/1U     |
| Izod Impact, unnotched 80°10°4 -30°C        | NB             | kJ/m² | ISO 180/1U     |
| Izod Impact, notched 80°10°4 +23°C          | 50             | kJ/m² | ISO 180/1A     |
| Izod Impact, notched 80°10°4 -30°C          | 30             | kJ/m² | ISO 180/1A     |
| Izod Impact, notched 80°10°4 -40°C          | 20             | kJ/m² | ISO 180/1A     |
| Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm  | 55             | kJ/m² | ISO 179/1eA    |
| Charpy -30°C, V-notch Edgew 80°10°4 sp=62mm | 35             | kJ/m² | ISO 179/1eA    |
| Charpy 23°C, Unnotch Edgew 80°10°4 sp=62mm  | NB             | kJ/m² | ISO 179/1eU    |
| Charpy -30°C, Unnotch Edgew 80°10°4 sp=62mm | NB             | kJ/m² | ISO 179/1eU    |
| <b>THERMAL</b>                              |                |       |                |
| Thermal Conductivity                        | 0.2            | W/m°C | ISO 8302       |
| CTE, 23°C to 80°C, flow                     | 9.E-05         | 1/°C  | ISO 11359-2    |
| CTE, 23°C to 80°C, xflow                    | 9.5E-05        | 1/°C  | ISO 11359-2    |
| Ball Pressure Test, 75°C +/- 2°C            | PASSES         | -     | IEC 60695-10-2 |
| Vicat Softening Temp, Rate A/50             | 155            | °C    | ISO 306        |
| Vicat Softening Temp, Rate B/50             | 120            | °C    | ISO 306        |
| Vicat Softening Temp, Rate B/120            | 125            | °C    | ISO 306        |
| HDT/Be, 0.45MPa Edgew 120°10°4 sp=100mm     | 105            | °C    | ISO 75/Be      |
| HDT/Ae, 1.8 MPa Edgew 120°10°4 sp=100mm     | 82             | °C    | ISO 75/Ae      |
| Relative Temp Index, Elec                   | 75             | °C    | UL 746B        |
| Relative Temp Index, Mech w/impact          | 75             | °C    | UL 746B        |
| Relative Temp Index, Mech w/o impact        | 75             | °C    | UL 746B        |
| <b>PHYSICAL</b>                             |                |       |                |
| Mold Shrinkage on Tensile Bar, flow         | 0.7 – 1.1      | %     | SABIC method   |
| Mold Shrinkage on Tensile Bar, xflow        | 0.8 – 1.1      | %     | SABIC method   |
| Density                                     | 1.22           | g/cm³ | ISO 1183       |
| Water Absorption, (23°C/saturated)          | 0.5            | %     | ISO 62-1       |
| Moisture Absorption (23°C / 50% RH)         | 0.15           | %     | ISO 62         |

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CHEMISTRY THAT MATTERS™



| PROPERTIES                             | TYPICAL VALUES                | UNITS                   | TEST METHODS |
|----------------------------------------|-------------------------------|-------------------------|--------------|
| Melt Volume Rate, MVR at 250°C/5.0 kg  | 15                            | cm <sup>3</sup> /10 min | ISO 1133     |
| <b>ELECTRICAL</b>                      |                               |                         |              |
| Dielectric Strength, shorttime, 1.0mm  | 18                            | kV/mm                   | IEC 60243-1  |
| Dielectric Strength, in oil, 3.2 mm    | 17                            | kV/mm                   | IEC 60243-1  |
| Relative Permittivity, 1 MHz           | 3.3                           | -                       | IEC 60250    |
| Dissipation Factor, 50/60 Hz           | 0.002                         | -                       | IEC 60250    |
| Dissipation Factor, 1 MHz              | 0.02                          | -                       | IEC 60250    |
| Relative Permittivity, 50/60 Hz        | 3.3                           | -                       | IEC 60250    |
| <b>FLAME CHARACTERISTICS</b>           |                               |                         |              |
| UL Yellow Card Link                    | <a href="#">E45329-236626</a> | -                       | -            |
| UL Recognized, 94HB Flame Class Rating | 1.5                           | mm                      | UL 94        |
| <b>INJECTION MOLDING</b>               |                               |                         |              |
| Drying Temperature                     | 90 – 100                      | °C                      |              |
| Drying Time                            | 2 – 4                         | Hrs                     |              |
| Maximum Moisture Content               | 0.02                          | %                       |              |
| Melt Temperature                       | 255 – 270                     | °C                      |              |
| Nozzle Temperature                     | 250 – 265                     | °C                      |              |
| Front - Zone 3 Temperature             | 250 – 270                     | °C                      |              |
| Middle - Zone 2 Temperature            | 240 – 265                     | °C                      |              |
| Rear - Zone 1 Temperature              | 230 – 250                     | °C                      |              |
| Hopper Temperature                     | 40 – 60                       | °C                      |              |
| Mold Temperature                       | 60 – 80                       | °C                      |              |

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