

## XENOY™ RESIN 1105

REGION ASIA

### DESCRIPTION

PBT/PC blend, injection molding grade, non-reinforced, impact modified, excellent toughness at low temperatures, very good paintability

### TYPICAL PROPERTY VALUES

Revision 20260509

| PROPERTIES                                   | TYPICAL VALUES | UNITS | TEST METHODS |
|----------------------------------------------|----------------|-------|--------------|
| <b>MECHANICAL</b>                            |                |       |              |
| Tensile Stress, yld, Type I, 50 mm/min       | 48             | MPa   | ASTM D638    |
| Tensile Stress, brk, Type I, 50 mm/min       | 47             | MPa   | ASTM D638    |
| Tensile Stress, yld, Type I, 5 mm/min        | 45             | MPa   | ASTM D638    |
| Tensile Stress, brk, Type I, 5 mm/min        | 46             | MPa   | ASTM D638    |
| Tensile Strain, yld, Type I, 50 mm/min       | 4.2            | %     | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min       | 120            | %     | ASTM D638    |
| Tensile Strain, yld, Type I, 5 mm/min        | 4.1            | %     | ASTM D638    |
| Tensile Strain, brk, Type I, 5 mm/min        | 110            | %     | ASTM D638    |
| Tensile Modulus, 50 mm/min                   | 2010           | MPa   | ASTM D638    |
| Tensile Modulus, 5 mm/min                    | 1980           | MPa   | ASTM D638    |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 76             | MPa   | ASTM D790    |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 74             | MPa   | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 1900           | MPa   | ASTM D790    |
| Tensile Stress, yield, 50 mm/min             | 52             | MPa   | ISO 527      |
| Tensile Stress, break, 50 mm/min             | 50             | MPa   | ISO 527      |
| Tensile Strain, yield, 50 mm/min             | 4.5            | %     | ISO 527      |
| Tensile Strain, break, 50 mm/min             | 116            | %     | ISO 527      |
| Tensile Modulus, 1 mm/min                    | 2070           | MPa   | ISO 527      |
| Flexural Stress, yield, 2 mm/min             | 78             | MPa   | ISO 178      |
| Flexural Strain, break, 2 mm/min             | 7.3            | %     | ISO 178      |
| Flexural Modulus, 2 mm/min                   | 2010           | MPa   | ISO 178      |
| Hardness, Shore D                            | 79             | -     | ISO 868      |
| <b>IMPACT</b>                                |                |       |              |
| Izod Impact, notched, 23°C                   | 755            | J/m   | ASTM D256    |
| Izod Impact, notched, 0°C                    | 715            | J/m   | ASTM D256    |
| Izod Impact, notched, -10°C                  | 695            | J/m   | ASTM D256    |
| Izod Impact, notched, -20°C                  | 687            | J/m   | ASTM D256    |
| Izod Impact, notched, -30°C                  | 489            | J/m   | ASTM D256    |
| Izod Impact, notched, -40°C                  | 372            | J/m   | ASTM D256    |
| Izod Impact, notched 80°10°4 +23°C           | 63             | kJ/m² | ISO 180/1A   |
| Izod Impact, notched 80°10°4 -30°C           | 51             | kJ/m² | ISO 180/1A   |
| Izod Impact, notched 80°10°4 -40°C           | 34             | kJ/m² | ISO 180/1A   |
| Charpy 23°C, V-notch Edgew 80°10°4 sp=62mm   | 62             | kJ/m² | ISO 179/1eA  |
| Charpy -30°C, V-notch Edgew 80°10°4 sp=62mm  | 47             | kJ/m² | ISO 179/1eA  |
| <b>THERMAL</b>                               |                |       |              |

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CHEMISTRY THAT MATTERS™



| PROPERTIES                             | TYPICAL VALUES | UNITS    | TEST METHODS |
|----------------------------------------|----------------|----------|--------------|
| Vicat Softening Temp, Rate B/50        | 122            | °C       | ASTM D1525   |
| HDT, 0.45 MPa, 6.4 mm, unannealed      | 115            | °C       | ASTM D648    |
| HDT, 1.82 MPa, 6.4 mm, unannealed      | 97             | °C       | ASTM D648    |
| Vicat Softening Temp, Rate B/50        | 122            | °C       | ISO 306      |
| Vicat Softening Temp, Rate B/120       | 123            | °C       | ISO 306      |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 109            | °C       | ISO 75/Bf    |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  | 90             | °C       | ISO 75/Af    |
| <b>PHYSICAL</b>                        |                |          |              |
| Specific Gravity                       | 1.2            | -        | ASTM D792    |
| Specific Volume                        | 1.2            | cm³/g    | ASTM D792    |
| Mold Shrinkage, flow, 3.2 mm           | 0.8 – 1        | %        | SABIC method |
| Mold Shrinkage, xflow, 3.2 mm          | 0.8 – 1        | %        | SABIC method |
| Melt Flow Rate, 250°C/5.0 kgf          | 16             | g/10 min | ASTM D1238   |
| Density                                | 1.2            | g/cm³    | ISO 1183     |
| Melt Flow Rate, 250°C/5.0 kg           | 16             | g/10 min | ISO 1133     |
| <b>INJECTION MOLDING</b>               |                |          |              |
| Drying Temperature                     | 110            | °C       |              |
| Drying Time                            | 4 – 6          | Hrs      |              |
| Drying Time (Cumulative)               | 8              | Hrs      |              |
| Maximum Moisture Content               | 0.02           | %        |              |
| Melt Temperature                       | 260 – 275      | °C       |              |
| Nozzle Temperature                     | 255 – 270      | °C       |              |
| Front - Zone 3 Temperature             | 255 – 275      | °C       |              |
| Middle - Zone 2 Temperature            | 250 – 270      | °C       |              |
| Rear - Zone 1 Temperature              | 245 – 265      | °C       |              |
| Mold Temperature                       | 65 – 90        | °C       |              |
| Back Pressure                          | 0.3 – 0.7      | MPa      |              |
| Screw Speed                            | 50 – 80        | rpm      |              |
| Shot to Cylinder Size                  | 50 – 80        | %        |              |
| Vent Depth                             | 0.013 – 0.02   | mm       |              |

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