

## **Europe-Africa-Middle East: COMMERCIAL**

XENOY 1760T is developed as a easy flow material, for applications such as doorhandles and mirror housings. It is a 11% glass reinforced material with excellent strength and dimensional stability.

| TYPICAL PROPERTIES <sup>1</sup>             | TYPICAL VALUE | Unit   | Standard       |
|---|---------------|--------|----------------|
| MECHANICAL                                  |               |        |                |
| Tensile Stress, break, 5 mm/min             | 90            | MPa    | ISO 527        |
| Tensile Strain, break, 5 mm/min             | 3             | %      | ISO 527        |
| Tensile Modulus, 1 mm/min                   | 4500          | MPa    | ISO 527        |
| Flexural Stress, break, 2 mm/min            | 140           | MPa    | ISO 178        |
| Flexural Modulus, 2 mm/min                  | 4000          | MPa    | ISO 178        |
| Hardness, H358/30                           | 105           | MPa    | ISO 2039-1     |
| Hardness, Rockwell R                        | 113           | -      | ISO 2039-2     |
| IMPACT                                      |               |        |                |
| Izod Impact, unnotched 80*10*4 +23°C        | 30            | kJ/m²  | ISO 180/1U     |
| Izod Impact, unnotched 80*10*4 -30°C        | 30            | kJ/m²  | ISO 180/1U     |
| Izod Impact, notched 80*10*4 +23°C          | 3             | kJ/m²  | ISO 180/1A     |
| Izod Impact, notched 80*10*4 0°C            | 3             | kJ/m²  | ISO 180/1A     |
| Izod Impact, notched 80*10*4 -30°C          | 3             | kJ/m²  | ISO 180/1A     |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm  | 4             | kJ/m²  | ISO 179/1eA    |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 3             | kJ/m²  | ISO 179/1eA    |
| Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm  | 35            | kJ/m²  | ISO 179/1eU    |
| Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm | 35            | kJ/m²  | ISO 179/1eU    |
| THERMAL                                     |               |        |                |
| Thermal Conductivity                        | 0.19          | W/m-°C | ISO 8302       |
| CTE, 23°C to 80°C, flow                     | 4.E-05        | 1/°C   | ISO 11359-2    |
| CTE, 23°C to 80°C, xflow                    | 1.1E-04       | 1/°C   | ISO 11359-2    |
| Ball Pressure Test, 75°C +/- 2°C            | PASSES        | -      | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/50             | 135           | °C     | ISO 306        |

#### Source GMD, last updated:

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<sup>(2)</sup> Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.



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|--|---------------|-------------------------|-------------------|
| THERMAL                                      |               |                         |                   |
| Vicat Softening Temp, Rate B/120             | 130           | °C                      | ISO 306           |
| HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm      | 115           | °C                      | ISO 75/Be         |
| HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm      | 105           | °C                      | ISO 75/Ae         |
| PHYSICAL                                     |               |                         |                   |
| Mold Shrinkage on Tensile Bar, flow (2) (5)  | 0.5 - 0.9     | %                       | SABIC Method      |
| Density                                      | 1.3           | g/cm³                   | ISO 1183          |
| Water Absorption, (23°C/sat)                 | 0.5           | %                       | ISO 62            |
| Moisture Absorption (23°C / 50% RH)          | 0.15          | %                       | ISO 62            |
| Melt Volume Rate, MVR at 250°C/5.0 kg        | 14            | cm <sup>3</sup> /10 min | ISO 1133          |
| ELECTRICAL                                   |               |                         |                   |
| Volume Resistivity                           | >1.E+14       | Ohm-cm                  | IEC 60093         |
| Surface Resistivity, ROA                     | >1.E+15       | Ohm                     | IEC 60093         |
| Dielectric Strength, in oil, 3.2 mm          | 17            | kV/mm                   | IEC 60243-1       |
| Relative Permittivity, 1 MHz                 | 3.1           | -                       | 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         |
| FLAME CHARACTERISTICS                        |               |                         |                   |
| UL Compliant, 94HB Flame Class Rating (3)(4) | 1.5           | mm                      | UL 94 by SABIC-IP |

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| ROCESSING PARAMETERS        | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| Injection Molding           |               |      |
| Drying Temperature          | 100 - 110     | °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 - 100      | °C   |

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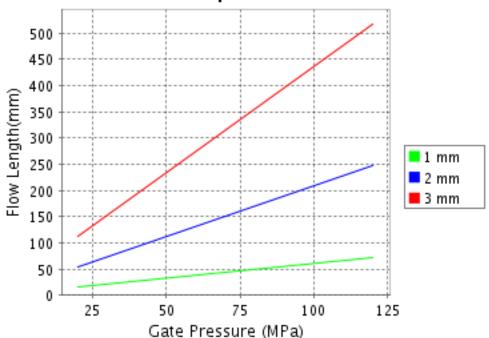
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# CALCULATED FLOW LENGTH INDICATION Moldflow® Radial Flow Analysis XENOY\* 1760T

Melt Temperature: 260°C Mold Temperature: 80°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

Moldflow is a registered trademark of the Moldflow Corporation.

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