

# XENOYTM RESIN 5720

## **REGION AMERICAS**

# **DESCRIPTION**

UR, PBT+PC alloy. Outstanding low temperature impact/chemical resistance.

## **TYPICAL PROPERTY VALUES**

Revision 20180905

| PROPERTIES                                   | TYPICAL VALUES | UNITS  | TEST METHODS |
|--|----------------|--------|--------------|
| MECHANICAL                                   |                |        |              |
| Tensile Stress, yld, Type I, 50 mm/min       | 49             | MPa    | ASTM D 638   |
| Tensile Strain, brk, Type I, 50 mm/min       | 165            | %      | ASTM D 638   |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 68             | MPa    | ASTM D 790   |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 1720           | MPa    | ASTM D 790   |
| IMPACT                                       |                |        |              |
| Izod Impact, unnotched, 23°C                 | 3204           | J/m    | ASTM D 4812  |
| Izod Impact, notched, 23°C                   | 801            | J/m    | ASTM D 256   |
| Izod Impact, notched, -40°C                  | 534            | J/m    | ASTM D 256   |
| Instrumented Impact Energy @ peak, 23°C      | 48             | J      | ASTM D 3763  |
| Instrumented Impact Energy @ peak, -40°C     | 55             | J      | ASTM D 3763  |
| THERMAL                                      |                |        |              |
| HDT, 0.45 MPa, 6.4 mm, unannealed            | 115            | °C     | ASTM D 648   |
| HDT, 1.82 MPa, 6.4 mm, unannealed            | 96             | °C     | ASTM D 648   |
| 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      |
| PHYSICAL                                     |                |        |              |
| Specific Gravity                             | 1.17           | -      | ASTM D 792   |
| Specific Volume                              | 0.85           | cm³/g  | ASTM D 792   |
| Water Absorption, 24 hours                   | 0.13           | %      | ASTM D 570   |
| Mold Shrinkage, flow, 3.2 mm                 | 1 – 1.2        | %      | SABIC method |
| ELECTRICAL                                   |                |        |              |
| Volume Resistivity                           | 9.5E+16        | Ohm-cm | ASTM D 257   |
| Dielectric Strength, in air, 1.6 mm          | 28.7           | kV/mm  | ASTM D 149   |
| Dielectric Strength, in air, 3.2 mm          | 19.8           | kV/mm  | ASTM D 149   |
| Relative Permittivity, 100 Hz                | 2.93           | -      | ASTM D 150   |
| Relative Permittivity, 1 MHz                 | 2.95           | -      | ASTM D 150   |
| Dissipation Factor, 100 Hz                   | 0.002          | -      | ASTM D 150   |
| Dissipation Factor, 1 MHz                    | 0.03           | -      | ASTM D 150   |
| FLAME CHARACTERISTICS                        |                |        |              |
| UL Recognized, 94HB Flame Class Rating       | 1.49           | mm     | UL 94        |
| INJECTION MOLDING                            |                |        |              |
| Drying Temperature                           | 110            | °C     |              |
| Drying Time                                  | 4 – 6          | hrs    |              |
| Drying Time (Cumulative)                     | 8              | hrs    |              |



| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| 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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