

# XENOY™ RESIN 5720

REGION AMERICAS

## DESCRIPTION

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

## TYPICAL PROPERTY VALUES

| PROPERTIES                                   | TYPICAL VALUES                 | UNITS | TEST METHODS |
|----------------------------------------------|--------------------------------|-------|--------------|
| <b>MECHANICAL</b>                            |                                |       |              |
| Tensile Stress, yld, Type I, 50 mm/min       | 49                             | MPa   | ASTM D638    |
| Tensile Strain, brk, Type I, 50 mm/min       | 165                            | %     | ASTM D638    |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 68                             | MPa   | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 1720                           | MPa   | ASTM D790    |
| <b>IMPACT</b>                                |                                |       |              |
| Izod Impact, unnotched, 23°C                 | 3204                           | J/m   | ASTM D4812   |
| Izod Impact, notched, 23°C                   | 801                            | J/m   | ASTM D256    |
| Izod Impact, notched, -40°C                  | 534                            | J/m   | ASTM D256    |
| Instrumented Dart Impact Energy @ peak, 23°C | 48                             | J     | ASTM D3763   |
| Instrumented Impact Energy @ peak, -40°C     | 55                             | J     | ASTM D3763   |
| <b>THERMAL</b>                               |                                |       |              |
| HDT, 0.45 MPa, 6.4 mm, unannealed            | 115                            | °C    | ASTM D648    |
| HDT, 1.82 MPa, 6.4 mm, unannealed            | 96                             | °C    | ASTM D648    |
| 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>                              |                                |       |              |
| Specific Gravity                             | 1.17                           | -     | ASTM D792    |
| Specific Volume                              | 0.85                           | cm³/g | ASTM D792    |
| Water Absorption, (23°C/24hrs)               | 0.13                           | %     | ASTM D570    |
| Mold Shrinkage, flow, 3.2 mm                 | 1 – 1.2                        | %     | SABIC method |
| <b>ELECTRICAL</b>                            |                                |       |              |
| Volume Resistivity                           | 9.5E+16                        | Ω.cm  | ASTM D257    |
| Dielectric Strength, in air, 1.6 mm          | 28.7                           | kV/mm | ASTM D149    |
| Dielectric Strength, in air, 3.2 mm          | 19.8                           | kV/mm | ASTM D149    |
| Relative Permittivity, 100 Hz                | 2.93                           | -     | ASTM D150    |
| Relative Permittivity, 1 MHz                 | 2.95                           | -     | ASTM D150    |
| Dissipation Factor, 100 Hz                   | 0.002                          | -     | ASTM D150    |
| Dissipation Factor, 1 MHz                    | 0.03                           | -     | ASTM D150    |
| <b>FLAME CHARACTERISTICS</b>                 |                                |       |              |
| UL Yellow Card Link                          | <a href="#">E121562-220839</a> | -     | -            |
| UL Recognized, 94HB Flame Class Rating       | 1.49                           | mm    | UL 94        |
| <b>INJECTION MOLDING</b>                     |                                |       |              |
| Drying Temperature                           | 110                            | °C    |              |
| Drying Time                                  | 4 – 6                          | Hrs   |              |

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