

# GELOY™ RESIN XP4045LG

REGION AMERICAS

## DESCRIPTION

PC/ASA. Excellent weatherability, low gloss.

## TYPICAL PROPERTY VALUES

| PROPERTIES                                    | TYPICAL VALUES | UNITS      | TEST METHODS |
|-----------------------------------------------|----------------|------------|--------------|
| <b>MECHANICAL</b>                             |                |            |              |
| Tensile Stress, yield, 50 mm/min              | 60             | MPa        | ISO 527      |
| Tensile Stress, break, 50 mm/min              | 45             | MPa        | ISO 527      |
| Tensile Strain, yield, 50 mm/min              | 5.2            | %          | ISO 527      |
| Tensile Strain, break, 50 mm/min              | 46.7           | %          | ISO 527      |
| Tensile Modulus, 1 mm/min                     | 2320           | MPa        | ISO 527      |
| Flexural Stress, yield, 2 mm/min              | 93             | MPa        | ISO 178      |
| Flexural Modulus, 2 mm/min                    | 2270           | MPa        | ISO 178      |
| <b>IMPACT</b>                                 |                |            |              |
| Instrumented Dart Impact Energy @ peak, 23°C  | 45             | J          | ASTM D3763   |
| Instrumented Dart Impact Energy @ peak, -30°C | 15             | J          | ASTM D3763   |
| Instrumented Dart Impact Total Energy, 23°C   | 53             | J          | ASTM D3763   |
| Instrumented Dart Impact Total Energy, -30°C  | 17             | J          | ASTM D3763   |
| Izod Impact, notched 80*10*4 +23°C            | 14             | kJ/m²      | ISO 180/1A   |
| Izod Impact, notched 80*10*4 -30°C            | 8              | kJ/m²      | ISO 180/1A   |
| Izod Impact, notched 80*10*4 -40°C            | 8              | kJ/m²      | ISO 180/1A   |
| Charpy -40°C, V-notch Edgew 80*10*3 sp=62mm   | 12             | kJ/m²      | ISO 179/1eA  |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm    | 25             | kJ/m²      | ISO 179/1eA  |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm   | 14             | kJ/m²      | ISO 179/1eA  |
| <b>THERMAL</b>                                |                |            |              |
| CTE, -30°C to 80°C, flow                      | 6.7E-05        | 1/°C       | ISO 11359-2  |
| CTE, -30°C to 80°C, xflow                     | 7.6E-05        | 1/°C       | ISO 11359-2  |
| Vicat Softening Temp, Rate B/50               | 126            | °C         | ISO 306      |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm        | 125            | °C         | ISO 75/Bf    |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm         | 103            | °C         | ISO 75/Af    |
| <b>PHYSICAL</b>                               |                |            |              |
| Mold Shrinkage, flow, 3.2 mm                  | 0.6 – 0.9      | %          | SABIC method |
| Mold Shrinkage, xflow, 3.2 mm                 | 0.6 – 0.9      | %          | SABIC method |
| Density                                       | 1.19           | g/cm³      | ISO 1183     |
| Melt Volume Rate, MVR at 260°C/5.0 kg         | 28             | cm³/10 min | ISO 1133     |
| <b>INJECTION MOLDING</b>                      |                |            |              |
| Drying Temperature                            | 95 – 105       | °C         |              |
| Drying Time                                   | 3 – 4          | Hrs        |              |
| Maximum Moisture Content                      | 0.04           | %          |              |
| Melt Temperature                              | 265 – 285      | °C         |              |
| Nozzle Temperature                            | 260 – 275      | °C         |              |



| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Front - Zone 3 Temperature  | 240 – 270      | °C    |              |
| Middle - Zone 2 Temperature | 250 – 275      | °C    |              |
| Rear - Zone 1 Temperature   | 260 – 280      | °C    |              |
| Mold Temperature            | 50 – 80        | °C    |              |
| Back Pressure               | 0.3 – 1        | MPa   |              |
| Screw Speed                 | 30 – 80        | rpm   |              |
| Shot to Cylinder Size       | 40 – 80        | %     |              |
| Vent Depth                  | 0.038 – 0.076  | mm    |              |