



**GELOY™ Resin XP7550**  
**Americas: COMMERCIAL**

PC/ASA. Excellent weatherability.

| TYPICAL PROPERTIES <sup>1</sup>              | TYPICAL VALUE | Unit                | Standard    |
|----------------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                            |               |                     |             |
| Tensile Stress, yld, Type I, 50 mm/min       | 570           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Stress, brk, Type I, 50 mm/min       | 440           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, yld, Type I, 50 mm/min       | 4             | %                   | ASTM D 638  |
| Tensile Strain, brk, Type I, 50 mm/min       | 40            | %                   | ASTM D 638  |
| Tensile Modulus, 5 mm/min                    | 26000         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 830           | kgf/cm <sup>2</sup> | ASTM D 790  |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 25200         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Hardness, Rockwell R                         | 109           | -                   | ASTM D 785  |
| Tensile Stress, yield, 50 mm/min             | 55            | MPa                 | ISO 527     |
| Tensile Stress, break, 50 mm/min             | 44            | MPa                 | ISO 527     |
| Tensile Strain, yield, 50 mm/min             | 3.8           | %                   | ISO 527     |
| Tensile Strain, break, 50 mm/min             | 37            | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min                    | 2550          | MPa                 | ISO 527     |
| Flexural Stress, yield, 2 mm/min             | 74            | MPa                 | ISO 178     |
| Flexural Modulus, 2 mm/min                   | 2400          | MPa                 | ISO 178     |
| <b>IMPACT</b>                                |               |                     |             |
| Izod Impact, notched, 23°C                   | 38            | cm-kgf/cm           | ASTM D 256  |
| Izod Impact, notched, -30°C                  | 5             | cm-kgf/cm           | ASTM D 256  |
| Instrumented Impact Total Energy, 23°C       | 367           | cm-kgf              | ASTM D 3763 |
| Instrumented Impact Total Energy, -30°C      | 101           | cm-kgf              | ASTM D 3763 |
| Izod Impact, notched 80*10*4 +23°C           | 35            | kJ/m <sup>2</sup>   | ISO 180/1A  |
| Izod Impact, notched 80*10*4 -30°C           | 9             | kJ/m <sup>2</sup>   | ISO 180/1A  |



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| <b>IMPACT</b>                               |               |                         |                |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm  | 40            | kJ/m <sup>2</sup>       | ISO 179/1eA    |
| <b>THERMAL</b>                              |               |                         |                |
| Vicat Softening Temp, Rate B/50             | 105           | °C                      | ASTM D 1525    |
| HDT, 0.45 MPa, 3.2 mm, unannealed           | 104           | °C                      | ASTM D 648     |
| HDT, 1.82 MPa, 3.2mm, unannealed            | 89            | °C                      | ASTM D 648     |
| CTE, -40°C to 40°C, flow                    | 7.2E-05       | 1/°C                    | ASTM E 831     |
| CTE, -40°C to 40°C, xflow                   | 7.9E-05       | 1/°C                    | ASTM E 831     |
| CTE, -40°C to 40°C, flow                    | 7.2E-05       | 1/°C                    | ISO 11359-2    |
| CTE, -40°C to 40°C, xflow                   | 7.8E-05       | 1/°C                    | ISO 11359-2    |
| Ball Pressure Test, 75°C +/- 2°C            | 85            | -                       | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/50             | 105           | °C                      | ISO 306        |
| Vicat Softening Temp, Rate B/120            | 106           | °C                      | ISO 306        |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm      | 103           | °C                      | ISO 75/Bf      |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm       | 89            | °C                      | ISO 75/Af      |
| <b>PHYSICAL</b>                             |               |                         |                |
| Specific Gravity                            | 1.11          | -                       | ASTM D 792     |
| Mold Shrinkage on Tensile Bar, flow (2) (5) | 0.5 - 0.7     | %                       | SABIC Method   |
| Mold Shrinkage, flow, 3.2 mm (5)            | 0.4 - 0.6     | %                       | SABIC Method   |
| Mold Shrinkage, xflow, 3.2 mm (5)           | 0.5 - 0.7     | %                       | SABIC Method   |
| Melt Flow Rate, 220°C/10.0 kgf              | 14            | g/10 min                | ASTM D 1238    |
| Density                                     | 1.11          | g/cm <sup>3</sup>       | ISO 1183       |
| Water Absorption, (23°C/sat)                | 0.8           | %                       | ISO 62         |
| Moisture Absorption (23°C / 50% RH)         | 0.3           | %                       | ISO 62         |
| Melt Volume Rate, MVR at 260°C/5.0 kg       | 26            | cm <sup>3</sup> /10 min | ISO 1133       |
| <b>OPTICAL</b>                              |               |                         |                |
| Gloss, untextured, 60 degrees               | 94            | -                       | ASTM D 523     |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 90 - 100      | °C   |
| Drying Time                 | 3 - 4         | hrs  |
| Drying Time (Cumulative)    | 8             | hrs  |
| Maximum Moisture Content    | 0.04          | %    |
| Melt Temperature            | 255 - 270     | °C   |
| Nozzle Temperature          | 240 - 255     | °C   |
| Front - Zone 3 Temperature  | 245 - 260     | °C   |
| Middle - Zone 2 Temperature | 240 - 255     | °C   |
| Rear - Zone 1 Temperature   | 230 - 250     | °C   |
| Mold Temperature            | 55 - 70       | °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   |