

# GELOY™ RESIN CR7520

REGION EUROPE

## DESCRIPTION

ASA. Profile and Sheet. Excellent weatherability, good flow/aesthetics and high impact.

## TYPICAL PROPERTY VALUES

Revision 20170816

| PROPERTIES                                  | TYPICAL VALUES | UNITS             | TEST METHODS   |
|---------------------------------------------|----------------|-------------------|----------------|
| MECHANICAL                                  |                |                   |                |
| Taber Abrasion, CS-17, 1 kg                 | 155            | mg/1000cy         | SABIC method   |
| Tensile Stress, yield, 5 mm/min             | 30             | MPa               | ISO 527        |
| Tensile Stress, break, 5 mm/min             | 25             | MPa               | ISO 527        |
| Tensile Stress, yield, 50 mm/min            | 35             | MPa               | ISO 527        |
| Tensile Stress, break, 50 mm/min            | 30             | MPa               | ISO 527        |
| Tensile Strain, yield, 5 mm/min             | 2.5            | %                 | ISO 527        |
| Tensile Strain, break, 5 mm/min             | 15             | %                 | ISO 527        |
| Tensile Strain, yield, 50 mm/min            | 2.7            | %                 | ISO 527        |
| Tensile Strain, break, 50 mm/min            | 10             | %                 | ISO 527        |
| Tensile Modulus, 1 mm/min                   | 1900           | MPa               | ISO 527        |
| Flexural Stress, yield, 2 mm/min            | 50             | MPa               | ISO 178        |
| Flexural Modulus, 2 mm/min                  | 1900           | MPa               | ISO 178        |
| Hardness, H358/30                           | 70             | MPa               | ISO 2039-1     |
| Hardness, Rockwell R                        | 95             | -                 | ISO 2039-2     |
| IMPACT                                      |                |                   |                |
| Izod Impact, notched 80*10*4 +23°C          | 9              | kJ/m <sup>2</sup> | ISO 180/1A     |
| Izod Impact, notched 80*10*4 -30°C          | 5              | kJ/m <sup>2</sup> | ISO 180/1A     |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm  | 9              | kJ/m <sup>2</sup> | ISO 179/1eA    |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 4              | kJ/m <sup>2</sup> | ISO 179/1eA    |
| THERMAL                                     |                |                   |                |
| Thermal Conductivity                        | 0.21           | W/m-°C            | ISO 8302       |
| CTE, 23°C to 60°C, flow                     | 9.E-05         | 1/°C              | ISO 11359-2    |
| CTE, 23°C to 60°C, xflow                    | 1.E-04         | 1/°C              | ISO 11359-2    |
| Ball Pressure Test, 75°C +/- 2°C            | PASSES         | -                 | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/50             | 85             | °C                | ISO 306        |
| Vicat Softening Temp, Rate B/120            | 90             | °C                | ISO 306        |
| HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm     | 85             | °C                | ISO 75/Be      |



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|------------------------------------------------------|----------------|-------------------------|----------------|
| HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm              | 75             | °C                      | ISO 75/Ae      |
| Relative Temp Index, Elec                            | 50             | °C                      | UL 746B        |
| Relative Temp Index, Mech w/impact                   | 50             | °C                      | UL 746B        |
| Relative Temp Index, Mech w/o impact                 | 50             | °C                      | UL 746B        |
| PHYSICAL                                             |                |                         |                |
| Mold Shrinkage on Tensile Bar, flow (2) (5)          | 0.4 – 0.7      | %                       | SABIC method   |
| Density                                              | 1.06           | g/cm <sup>3</sup>       | ISO 1183       |
| Water Absorption, (23°C/sat)                         | 0.55           | %                       | ISO 62         |
| Moisture Absorption (23°C / 50% RH)                  | 0.2            | %                       | ISO 62         |
| Melt Volume Rate, MVR at 220°C/10.0 kg               | 7              | cm <sup>3</sup> /10 min | ISO 1133       |
| Melt Volume Rate, MVR at 260°C/5.0 kg                | 8              | 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                  | 16             | kV/mm                   | IEC 60243-1    |
| Relative Permittivity, 1 MHz                         | 3.2            | -                       | IEC 60250      |
| Dissipation Factor, 50/60 Hz                         | 0.15           | -                       | IEC 60250      |
| Dissipation Factor, 1 MHz                            | 0.026          | -                       | IEC 60250      |
| Comparative Tracking Index                           | 600            | V                       | IEC 60112      |
| Comparative Tracking Index, M                        | 600            | V                       | IEC 60112      |
| Relative Permittivity, 50/60 Hz                      | 5.2            | -                       | IEC 60250      |
| FLAME CHARACTERISTICS                                |                |                         |                |
| UL Recognized, 94HB Flame Class Rating (3)           | 1              | mm                      | UL 94          |
| UL Recognized, 94HB Flame Class Rating 2nd value (3) | 3              | mm                      | UL 94          |
| Glow Wire Flammability Index 750°C, passes at        | 3.2            | mm                      | IEC 60695-2-12 |
| Oxygen Index (LOI)                                   | 19             | %                       | ISO 4589       |
| INJECTION MOLDING                                    |                |                         |                |
| Drying Temperature                                   | 75 – 85        | °C                      |                |
| Drying Time                                          | 2 – 4          | hrs                     |                |
| Maximum Moisture Content                             | 0.04           | %                       |                |
| Melt Temperature                                     | 240 – 260      | °C                      |                |
| Nozzle Temperature                                   | 220 – 250      | °C                      |                |
| Front - Zone 3 Temperature                           | 230 – 260      | °C                      |                |
| Middle - Zone 2 Temperature                          | 220 – 250      | °C                      |                |
| Rear - Zone 1 Temperature                            | 210 – 240      | °C                      |                |
| Hopper Temperature                                   | 60 – 80        | °C                      |                |
| Mold Temperature                                     | 40 – 70        | °C                      |                |





## DISCLAIMER

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