

# Envalior Akulon S223-G2U

13% Glass Reinforced  
 Former DSM Engineering Plastics product line is now with Envalior.

| Physical Properties               | Metric      | English                   | Comments              |
|-----------------------------------|-------------|---------------------------|-----------------------|
| Density                           | 1.25 g/cc   | 0.0452 lb/in <sup>3</sup> | ISO 1183              |
| Water Absorption                  | 8.0 %       | 8.0 %                     | Sim. ISO 62           |
| Moisture Absorption               | 2.10 %      | 2.10 %                    | Humidity; Sim. ISO 62 |
| Linear Mold Shrinkage, Flow       | 0.010 cm/cm | 0.010 in/in               | ISO 294-4             |
| Linear Mold Shrinkage, Transverse | 0.015 cm/cm | 0.015 in/in               | ISO 294-4             |

| Mechanical Properties     | Metric                                           | English                                             | Comments     |
|---------------------------|--------------------------------------------------|-----------------------------------------------------|--------------|
| Tensile Strength at Break | 105 MPa                                          | 15200 psi                                           | ISO 527-1/-2 |
| Elongation at Break       | 4.0 %                                            | 4.0 %                                               | ISO 527-1/-2 |
| Tensile Modulus           | 5.80 GPa                                         | 841 ksi                                             | ISO 527-1/-2 |
| Flexural Strength         | 165 MPa                                          | 23900 psi                                           | ISO 178      |
| Flexural Modulus          | 4.70 GPa                                         | 682 ksi                                             | ISO 178      |
| Charpy Impact, Notched    | 0.300 J/cm <sup>2</sup><br>@Temperature -30.0 °C | 1.43 ft-lb/in <sup>2</sup><br>@Temperature -22.0 °F | ISO 179/1eA  |
|                           | 0.400 J/cm <sup>2</sup><br>@Temperature 23.0 °C  | 1.90 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F  | ISO 179/1eA  |

| Thermal Properties                          | Metric                    | English                    | Comments                 |
|---------------------------------------------|---------------------------|----------------------------|--------------------------|
| Melting Point                               | 260 °C                    | 500 °F                     | 10°C/min; ISO 11357-1/-3 |
| Deflection Temperature at 0.46 MPa (66 psi) | 250 °C                    | 482 °F                     | ISO 75-1/-2              |
| Deflection Temperature at 1.8 MPa (264 psi) | 240 °C                    | 464 °F                     | ISO 75-1/-2              |
| Flammability, UL94                          | HB<br>@Thickness 1.50 mm  | HB<br>@Thickness 0.0591 in | IEC 60695-11-10          |
|                                             | HB<br>@Thickness 0.710 mm | HB<br>@Thickness 0.0280 in | IEC 60695-11-10          |