

# 4DUR® 9K22150

Polybutylene Terephthalate

4Plas

Message:

4DUR 9K22150 is a Standard Flow 50% Glass Fibre Reinforced PBT

| General Information                                       |                                                       |                   |             |
|-----------------------------------------------------------|-------------------------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                    | Glass fiber reinforced material, 50% filler by weight |                   |             |
| Processing Method                                         | Injection molding                                     |                   |             |
| Physical                                                  | Nominal Value                                         | Unit              | Test Method |
| Density                                                   | 1.72                                                  | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage                                         |                                                       |                   |             |
| Vertical flow direction                                   | 0.80                                                  | %                 |             |
| Flow direction                                            | 0.20                                                  | %                 |             |
| Water Absorption <sup>1</sup> (Equilibrium, 23°C, 50% RH) | 0.10                                                  | %                 | ISO 62      |
| Moisture Content                                          | < 800                                                 | ppm               | ISO 960     |
| Mechanical                                                | Nominal Value                                         | Unit              | Test Method |
| Tensile Modulus (23°C)                                    | 18000                                                 | MPa               | ISO 527-2/5 |
| Tensile Stress (Break, 23°C)                              | 150                                                   | MPa               | ISO 527-2/5 |
| Tensile Strain (Break, 23°C)                              | 1.5                                                   | %                 | ISO 527-2/5 |
| Impact                                                    | Nominal Value                                         | Unit              | Test Method |
| Notched Izod Impact                                       |                                                       |                   | ISO 180/1A  |
| -30°C                                                     | 9.0                                                   | kJ/m <sup>2</sup> | ISO 180/1A  |
| 23°C                                                      | 11                                                    | kJ/m <sup>2</sup> | ISO 180/1A  |
| Thermal                                                   | Nominal Value                                         | Unit              | Test Method |
| Heat Deflection Temperature                               |                                                       |                   |             |
| 0.45 MPa, not annealed                                    | 220                                                   | °C                | ISO 75-2/B  |
| 1.8 MPa, not annealed                                     | 210                                                   | °C                | ISO 75-2/A  |
| Vicat Softening Temperature                               | 215                                                   | °C                | ISO 306/B   |
| Melting Temperature <sup>2</sup>                          | 225                                                   | °C                | ISO 11357   |
| Electrical                                                | Nominal Value                                         | Unit              | Test Method |
| Surface Resistivity                                       | 1.0E+14                                               | ohms              | IEC 60093   |
| Volume Resistivity                                        | 1.0E+16                                               | ohms · cm         | IEC 60093   |
| Flammability                                              | Nominal Value                                         | Unit              | Test Method |
| Flame Rating                                              |                                                       |                   | UL 94       |
| 1.60 mm                                                   | HB                                                    |                   | UL 94       |
| 3.20 mm                                                   | HB                                                    |                   | UL 94       |
| Injection                                                 | Nominal Value                                         | Unit              | Test Method |
| Drying Temperature                                        | 120                                                   | °C                |             |

|                        |             |     |
|------------------------|-------------|-----|
| Drying Time            | 2.0 - 4.0   | hr  |
| Suggested Max Moisture | 0.040       | %   |
| Processing (Melt) Temp | 250 - 270   | °C  |
| Mold Temperature       | 60.0 - 100  | °C  |
| Injection Rate         | Fast        |     |
| Holding Pressure       | 40.0 - 80.0 | MPa |
| Screw Speed            | < 200       | rpm |

#### Injection instructions

Feed Throat Temperature: 50 - 70 °C Back Pressure: Low

#### NOTE

1. 24 Hrs
2. 10 K/min

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