

# RAMSTER PF310G6

Polybutylene Terephthalate

Polyram Ram-On Industries

Message:

30% GLASS FIBER REINFORCED P.B.T. ALLOY, LOW WARP PROPERTIES, UV STABILIZED FOR INJECTION MOULDING APPLICATIONS.

| General Information                                 |                                                       |                   |                         |
|-----------------------------------------------------|-------------------------------------------------------|-------------------|-------------------------|
| Filler / Reinforcement                              | Glass fiber reinforced material, 30% filler by weight |                   |                         |
| Additive                                            | Flame retardancy                                      |                   |                         |
| Features                                            | Flame retardancy                                      |                   |                         |
| RoHS Compliance                                     | RoHS compliance                                       |                   |                         |
| Processing Method                                   | Injection molding                                     |                   |                         |
| Physical                                            | Nominal Value                                         | Unit              | Test Method             |
| Specific Gravity                                    | 1.53                                                  | g/cm <sup>3</sup> | ASTM D792, ISO 1183     |
| Molding Shrinkage                                   |                                                       |                   |                         |
| Flow                                                | 0.15 - 0.75                                           | %                 | ASTM D955               |
| --                                                  | 0.15 - 0.75                                           | %                 | ISO 2577                |
| Water Absorption                                    |                                                       |                   |                         |
| Saturation                                          | 0.50                                                  | %                 | ASTM D570               |
| Saturated, 23°C                                     | 0.50                                                  | %                 | ISO 62                  |
| Equilibrium, 23°C, 50% RH                           | 0.10                                                  | %                 | ASTM D570, ISO 62       |
| Mechanical                                          | Nominal Value                                         | Unit              | Test Method             |
| Tensile Modulus                                     | 9100                                                  | MPa               | ASTM D638, ISO 527-2    |
| Tensile Stress (Yield)                              | 140                                                   | MPa               | ISO 527-2               |
| Tensile Strain (Break)                              | 3.0                                                   | %                 | ISO 527-2               |
| Flexural Modulus                                    | 8800                                                  | MPa               | ASTM D790, ISO 178      |
| Flexural Strength                                   | 200                                                   | MPa               | ASTM D790, ISO 178      |
| Impact                                              | Nominal Value                                         | Unit              | Test Method             |
| Notched Izod Impact                                 |                                                       |                   |                         |
| 23°C                                                | 100                                                   | J/m               | ASTM D256               |
| 23°C                                                | 10                                                    | kJ/m <sup>2</sup> | ISO 180                 |
| Thermal                                             | Nominal Value                                         | Unit              | Test Method             |
| Deflection Temperature Under Load                   |                                                       |                   |                         |
| 0.45 MPa, not annealed                              | 225                                                   | °C                | ASTM D648, ISO 75-2/B   |
| 1.8 MPa, not annealed                               | 215                                                   | °C                | ASTM D648, ISO 75-2/A   |
| Maximum operating temperature-Short Peaks Operation | 200                                                   | °C                |                         |
| Maximum Continuous Use Temperature                  | 130                                                   | °C                |                         |
| Flammability                                        | 15                                                    | mm/min            | FMVSS 302               |
| Melting Temperature                                 | 225                                                   | °C                | ISO 11357-3, ASTM D3417 |

| Electrical             | Nominal Value | Unit    | Test Method |
|------------------------|---------------|---------|-------------|
| Volume Resistivity     | > 1.0E+17     | ohms·cm | IEC 60093   |
| Dielectric Strength    | 3.8           | kV/mm   | IEC 60243-1 |
| Flammability           | Nominal Value | Unit    | Test Method |
| Flame Rating           | HB            |         | UL 94       |
| Injection              | Nominal Value | Unit    |             |
| Drying Temperature     | 120           | °C      |             |
| Drying Time            | 3.0 - 4.0     | hr      |             |
| Suggested Max Moisture | 0.050         | %       |             |
| Rear Temperature       | 235 - 255     | °C      |             |
| Middle Temperature     | 240 - 260     | °C      |             |
| Front Temperature      | 245 - 270     | °C      |             |
| Processing (Melt) Temp | 240 - 270     | °C      |             |
| Mold Temperature       | 70.0 - 90.0   | °C      |             |
| Injection Pressure     | 70.0 - 105    | MPa     |             |
| Holding Pressure       | 30.0 - 105    | MPa     |             |
| Back Pressure          | 0.350 - 0.700 | MPa     |             |
| Screw Speed            | 60 - 90       | rpm     |             |
| Injection instructions |               |         |             |

Fill Speed: 25 to 50 mm/sec

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#### Recommended distributors for this material

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