# **BESTDUR THG4U/11**

### Polybutylene Terephthalate

**Triesa Plastics** 

#### Message:

PBT special black with 20% glass fibre reinforcement and protected against ultra violet rays (UV). Is a PBT with good mechanical properties and good stiffness, that also includes a protection against UV, used in any piece that requires good mechanical properties and / or exposed to external atmospheric agents.

| General Information                     |                                  |        |                 |  |  |
|---|----------------------------------|--------|-----------------|--|--|
| Filler / Reinforcement                  | Glass Fiber,20% Filler by Weight |        |                 |  |  |
| Additive                                | UV Stabilizer                    |        |                 |  |  |
| Features                                | Good Stiffness                   |        |                 |  |  |
|   | Good UV Resistance               |        |                 |  |  |
|   |                                  |        |                 |  |  |
| Appearance                              | Black                            |        |                 |  |  |
| Forms                                   | Pellets                          |        |                 |  |  |
| Processing Method                       | Injection Molding                |        |                 |  |  |
| Physical                                | Nominal Value                    | Unit   | Test Method     |  |  |
| Density                                 | 1.45                             | g/cm³  | ISO 1183        |  |  |
| Water Absorption (23°C, 24 hr)          | 0.10                             | %      | ISO 62          |  |  |
| Ash Content                             | 20                               | %      | Internal Method |  |  |
| Humidity - Pellets                      | 0.20                             | %      | ISO 1110        |  |  |
| Hardness                                | Nominal Value                    | Unit   | Test Method     |  |  |
| Shore Hardness (Shore D)                | 80                               |        | ISO 868         |  |  |
| Mechanical                              | Nominal Value                    | Unit   | Test Method     |  |  |
| Tensile Modulus                         | 7200                             | MPa    | ISO 527-2       |  |  |
| Tensile Stress                          | 122                              | MPa    | ISO 527-2       |  |  |
| Tensile Strain (Break)                  | 3.0                              | %      | ISO 527-2       |  |  |
| Impact                                  | Nominal Value                    | Unit   | Test Method     |  |  |
| Charpy Notched Impact Strength (23°C)   | 6.0                              | kJ/m²  | ISO 179         |  |  |
| Charpy Unnotched Impact Strength (23°C) | 45                               | kJ/m²  | ISO 179         |  |  |
| Thermal                                 | Nominal Value                    | Unit   | Test Method     |  |  |
| Heat Deflection Temperature             |                                  |        |                 |  |  |
| 0.45 MPa, Unannealed                    | 210                              | °C     | ISO 75-2/B      |  |  |
| 1.8 MPa, Unannealed                     | 195                              | °C     | ISO 75-2/A      |  |  |
| Vicat Softening Temperature             | 215                              | °C     | ISO 306         |  |  |
| Electrical                              | Nominal Value                    | Unit   | Test Method     |  |  |
| Surface Resistivity                     | 1.0E+15                          | ohms   | IEC 60093       |  |  |
| Electric Strength                       | 30                               | kV/mm  | IEC 60243-1     |  |  |
| Flammability                            | Nominal Value                    | Unit   | Test Method     |  |  |
| Burning Rate                            | < 100                            | mm/min | FMVSS 302       |  |  |

| Flame Rating           | НВ            |      | UL 94 |
|------------------------|---------------|------|-------|
| Injection              | Nominal Value | Unit |       |
| Drying Temperature     | 100           | °C   |       |
| Drying Time            | 2.0 to 4.0    | hr   |       |
| Processing (Melt) Temp | 245 to 260    | °C   |       |
| Mold Temperature       | 70.0 to 80.0  | °C   |       |

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