

## Technical Data Sheet



### ALCOM PBT 700/1.1 CF20 PTFE15

|                        |                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------|
| Base Polymer           | Polybutylene Terephthalate                                                                  |
| Filler/Additive System | 20 % carbon fibres,15 % PTFE                                                                |
| Special Features       | electrically conductive,reduced surface resistivity,improved sliding / wear,heat stabilised |
| Market Segment         | Machinery                                                                                   |
| Application Area       | injection moulded parts                                                                     |
| Typical Applications   | housings,functional components                                                              |

|                               |                                                                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-Drying Conditions         | in a dry air (dessiccant) dryer 100-120 °C<br>for 2-4 h<br>in an air circulating dryer 100-120 °C<br>for 4-8 h<br>dependant on moisture content |
| Processing Injection Moulding | melt temperature 250-270 °C<br>mould temperature 80-120 °C                                                                                      |
| Storage                       | dry, protected from light                                                                                                                       |

| Properties                             | Value     | Dimension         | Test Norm     |
|----------------------------------------|-----------|-------------------|---------------|
| <b>Mechanical Properties</b>           |           |                   |               |
| Flexural Modulus                       | 14100     | MPa               | ISO 178       |
| Flexural Strength                      | 210       | MPa               | ISO 178       |
| Tensile Modulus                        | 16200     | MPa               | ISO 527       |
| Tensile Strength at Break              | 140       | MPa               | ISO 527       |
| Tensile Elongation at Break            | 1.6       | %                 | ISO 527       |
| Impact Strength (Charpy, 23°C)         | 37        | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Notched Impact Strength (Charpy, 23°C) | 6         | kJ/m <sup>2</sup> | ISO 179/1eA   |
| <b>Thermal Properties</b>              |           |                   |               |
| Vicat B50                              | 210       | °C                | ISO 306       |
| HDT / A (1,8 MPa)                      | 217       | °C                | ISO 75-1/-2   |
| <b>Electrical Properties</b>           |           |                   |               |
| Surface Resistance                     | 25        | Ohm               | IEC 62631-3-2 |
| <b>Rheological Properties</b>          |           |                   |               |
| Shrinkage (lengthwise, 24h)            | 0.1 - 0.3 | %                 | ISO 294-4     |
| Shrinkage (lateral, 24h)               | 0.6 - 0.8 | %                 | ISO 294-4     |
| <b>Physical Properties</b>             |           |                   |               |
| Density                                | 1470      | kg/m <sup>3</sup> | ISO 1183      |