

## Technical Data Sheet



## ALCOM PA6 900/1 GF30 MO2

|                        |                                                      |
|------------------------|------------------------------------------------------|
| Base Polymer           | Polyamide 6                                          |
| Filler/Additive System | 30 % glass fibres, 2 % molybdenum disulphide         |
| Special Features       | improved sliding / wear, heat stabilised             |
| Market Segment         | Automotive, Machinery                                |
| Application Area       | gear wheels, roller bearings                         |
| Typical Applications   | bearings and sliding elements, functional components |

|                       |                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------|
| Pre-Drying Conditions | 80 °C in a dry air (dessiccant) dryer<br>for 2-12 h<br>dependant on moisture content |
|-----------------------|--------------------------------------------------------------------------------------|

|                               |                                                           |
|-------------------------------|-----------------------------------------------------------|
| Processing Injection Moulding | melt temperature 250-270 °C<br>mould temperature 40-80 °C |
|-------------------------------|-----------------------------------------------------------|

|         |                           |
|---------|---------------------------|
| Storage | dry, protected from light |
|---------|---------------------------|

| Properties                              | dry/cond.   | Dimension         | Test Norm   |
|-----------------------------------------|-------------|-------------------|-------------|
| <b>Mechanical Properties</b>            |             |                   |             |
| Flexural Modulus                        | 7900 / 5100 | MPa               | ISO 178     |
| Flexural Strength                       | 230 / 160   | MPa               | ISO 178     |
| Tensile Modulus                         | 9100 / 5600 | MPa               | ISO 527     |
| Tensile Strength at Break               | 165 / 110   | MPa               | ISO 527     |
| Tensile Elongation at Break             | 4 / 7.3     | %                 | ISO 527     |
| Impact Strength (Charpy, 23°C)          | 95 / 100    | kJ/m <sup>2</sup> | ISO 179/1eU |
| Impact Strength (Charpy, -40°C)         | 65 / -      | kJ/m <sup>2</sup> | ISO 179/1eU |
| Notched Impact Strength (Charpy, 23°C)  | 11 / 17     | kJ/m <sup>2</sup> | ISO 179/1eA |
| Notched Impact Strength (Charpy, -40°C) | 8.5 / -     | kJ/m <sup>2</sup> | ISO 179/1eA |
| <b>Thermal Properties</b>               |             |                   |             |
| HDT / A (1,8 MPa)                       | 210 / *     | °C                | ISO 75-1/-2 |
| DSC (Melt Point)                        | 220 / *     | °C                | ISO 11357   |
| <b>Rheological Properties</b>           |             |                   |             |
| Shrinkage (lengthwise, 24h)             | 0.1 - 0.3   | %                 | ISO 294-4   |
| Shrinkage (lateral, 24h)                | 0.4 - 0.6   | %                 | ISO 294-4   |
| <b>Physical Properties</b>              |             |                   |             |
| Density                                 | 1390 / -    | kg/m <sup>3</sup> | ISO 1183    |