# **MAJORIS BG209**

### Polypropylene

AD majoris

#### Message:

BG209 is a 20% chemically coupled glass fibre reinforced polypropylene compound intended for injection moulding.
The product is available in natural, but other colours can be provided on request.
BG209 has been developed especially for demanding applications in automotive/electrical industry and engineering sectors.
BG209 has high rigidity and impact strength, good dimensional stability and good creep resistancy also at high temperatures.
APPLICATIONS
Product requiring very high overall mechanical performance such as:
Air filter cases
Sockets and junction boxes for electrical industry
Domestic appliance components
Miscellaneous technical items

Can suitably be made from BG209.

| General Information                   |   |          |             |  |
|---------------------------------------|---|----------|-------------|--|
| Filler / Reinforcement                | Glass fiber reinforced material, 20% filler by weight |          |             |  |
| Features                              | Good dimensional stability                            |          |             |  |
|                                       | Rigidity, high  |          |             |  |
|                                       | Chemical coupling                                     |          |             |  |
|                                       | Impact resistance, high                               |          |             |  |
|                                       | Recyclable materials                                  |          |             |  |
|                                       | Good creep resistance                                 |          |             |  |
|                                       |   |          |             |  |
| Uses                                  | Electrical/Electronic Applications                    |          |             |  |
|                                       | Filter  |          |             |  |
|                                       | Home appliance components                             |          |             |  |
|                                       | Application in Automobile Field                       |          |             |  |
|                                       |   |          |             |  |
| Appearance                            | Available colors                                      |          |             |  |
|                                       | Natural color   |          |             |  |
|                                       |   |          |             |  |
| Forms                                 | Particle  |          |             |  |
| Processing Method                     | Injection molding                                     |          |             |  |
| Physical                              | Nominal Value   | Unit     | Test Method |  |
| Density                               | 1.04  | g/cm³    | ISO 1183    |  |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 |   |          |             |  |
| kg)                                   | 2.2   | g/10 min | ISO 1133    |  |
| Molding Shrinkage                     | 0.60 - 0.90   | %        |             |  |
| Mechanical                            | Nominal Value   | Unit     | Test Method |  |
| Tensile Modulus                       | 4670  | MPa      | ISO 527-2/1 |  |
| Tensile Stress (Break)                | 70.0  | MPa      | ISO 527-2/5 |  |
| Tensile Strain (Break)                | 4.0   | %        | ISO 527-2/5 |  |

| Flexural Modulus <sup>1</sup>        | 4600              | MPa   | ISO 178     |
|--------------------------------------|-------------------|-------|-------------|
| Impact                               | Nominal Value     | Unit  | Test Method |
| Charpy Notched Impact Strength       |                   |       | ISO 179/1eA |
| -20°C                                | 6.9               | kJ/m² | ISO 179/1eA |
| 23°C                                 | 12                | kJ/m² | ISO 179/1eA |
| Charpy Unnotched Impact Strength     |                   |       | ISO 179/1eU |
| -20°C                                | 44                | kJ/m² | ISO 179/1eU |
| 23°C                                 | 48                | kJ/m² | ISO 179/1eU |
| Thermal                              | Nominal Value     | Unit  | Test Method |
| Heat Deflection Temperature          |                   |       |             |
| 0.45 MPa, not annealed               | 145               | °C    | ISO 75-2/B  |
| 1.8 MPa, not annealed                | 135               | °C    | ISO 75-2/A  |
| Vicat Softening Temperature          |                   |       |             |
|                                      | 163               | °C    | ISO 306/A   |
|                                      | 128               | °C    | ISO 306/B   |
| Flammability                         | Nominal Value     |       | Test Method |
| Flame Rating                         | НВ                |       | UL 94       |
| Injection                            | Nominal Value     | Unit  |             |
| Processing (Melt) Temp               | 220 - 260         | °C    |             |
| Mold Temperature                     | 30.0 - 60.0       | °C    |             |
| Injection Rate                       | Slow-Moderate     |       |             |
| Injection instructions               |                   |       |             |
| Holding pressure: 50 to 70% of the i | njection pressure |       |             |
| NOTE                                 |                   |       |             |
| 1.                                   | 2.0 mm/min        |       |             |

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#### Recommended distributors for this material

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