



## Technical Data Sheet

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### POM C FG 300/200x1000 mm black

|             |          |
|-------------|----------|
| Article No. | P1007088 |
| Category    | POM      |

#### Technical Properties

##### Density & Weight

| Property | Value | Unit  | Test standard |
|----------|-------|-------|---------------|
| Density  | 1.24  | g/cm³ | ASTM D792     |

##### Moisture Absorption

| Property                       | Value | Unit | Test standard |
|--------------------------------|-------|------|---------------|
| Water absorption to saturation | 2.2   | %    | ASTM D955     |
| Water Absorption to Saturation | 0.5   | %    | ASTM D570     |

##### Tensile Properties

| Property                        | Value | Unit | Test standard    |
|---------------------------------|-------|------|------------------|
| Tensile Strength                | 51    | MPa  | DIN EN ISO 527-2 |
| Modulus of elasticity (tensile) | 1200  | MPa  | ASTM D790        |
| Breakdown Voltage               | 76.5  | MPa  | ISO 527          |
| Break Elongation                | 300   | %    | ASTM D638        |

##### Flexural Properties

| Property          | Value | Unit | Test standard |
|-------------------|-------|------|---------------|
| Flexural Strength | 58    | MPa  | ASTM D638     |

##### Impact Resistance

| Property                         | Value | Unit  | Test standard    |
|----------------------------------|-------|-------|------------------|
| Notched impact strength (Charpy) | 6     | kJ/m² | DIN EN ISO 179-1 |



| Property                   | Value | Unit  | Test standard |
|----------------------------|-------|-------|---------------|
| Impact Resistance (Charpy) | 19    | kJ/m² | ISO 179/1eU   |

Hardness

| Property               | Value | Unit      | Test standard |
|------------------------|-------|-----------|---------------|
| Hardness Shore D       | 83    | ° Shore D | ISO 868       |
| Ball pressure hardness | 230   | MPa       | ISO 2039-1    |

Temperature Limits

| Property                                   | Value  | Unit | Test standard |
|--------------------------------------------|--------|------|---------------|
| Melting point                              | 222    | °C   | ISO 3146      |
| Maximal operating temperature (short-term) | 129    | °C   | UL746B        |
| Maximum Operating Temperature              | 90     | °C   |               |
| Minimum temperature                        | -46.25 | °C   |               |
| Heat deflection temperature (HDT/A)        | 105    | °C   | ASTM D648     |
| Heat deflection temperature (HDT/B)        | 155    | °C   | ISO 75        |
| Vicat softening temperature (VST/B/50)     | 50     | °C   | ISO 306       |

Thermal Conductivity

| Property             | Value | Unit    | Test standard |
|----------------------|-------|---------|---------------|
| Thermal Conductivity | 0.3   | W/(m·K) | DIN 52612     |

Thermal Expansion

| Property                      | Value | Unit                | Test standard |
|-------------------------------|-------|---------------------|---------------|
| Thermal Expansion Coefficient | 0.4   | 10 <sup>-4</sup> /K | ISO 11359     |

Insulation Properties

| Property                        | Value            | Unit  | Test standard |
|---------------------------------|------------------|-------|---------------|
| Dielectric Strength             | 85               | kV/mm | IEC 60243-1   |
| Volume Resistivity              | 10 <sup>12</sup> | Ω     | IEC 60093     |
| Dielectric Constant (1 MHz)     | 3.7              | -     | IEC 60250     |
| Dielectric loss factor (1 MHz)  | 0.0              | -     | IEC 60250     |
| Dielectric loss factor (100 Hz) | 0.0              | -     | IEC 60250     |

Static spread

| Property                         | Value            | Unit | Test standard |
|----------------------------------|------------------|------|---------------|
| Surface Resistivity              | 10 <sup>13</sup> | Ω    | IEC 60093     |
| Comparative Tracking Index (CTI) | 600              | V    | IEC 60112     |

Fire Classification

| Property                            | Value | Unit | Test standard |
|-------------------------------------|-------|------|---------------|
| Flammability Classification (UL 94) | 60695 |      | UL 94         |