



POM copolymer Injection molding grade with tribological modification for demanding applications that require prevention of audible noise caused by stick-slip phenomenon. Excellent tribological performance with low friction and low wear under various conditions of sliding against plastics and metals. Reduced emission grade. Emissions according to VDA 275 < 5 mg/kg.

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988-1: POM-K | M-GNRS2 | 5-2 | - | POM copolymer

| Product information | | | |
|-----------------------------------------------|---------------------|------------------------|-----------------|
| Resin Identification | POM | | ISO 1043 |
| Part Marking Code | >POM< | | ISO 11469 |
| Rheological properties | | | |
| Melt volume-flow rate | 24 | cm ³ /10min | ISO 1133 |
| Temperature | 190 | | .55 .155 |
| Load | 2.16 | | |
| Moulding shrinkage, parallel | 1.9 | 0 | ISO 294-4, 2577 |
| Moulding shrinkage, normal | 1.8 | % | ISO 294-4, 2577 |
| Typical mechanical properties | | | |
| Tensile modulus | 2500 | MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 56 | MPa | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 8 | % | ISO 527-1/-2 |
| Nominal strain at break | 45 | % | ISO 527-1/-2 |
| Flexural modulus | 2350 | MPa | ISO 178 |
| Flexural strength | 77 | MPa | ISO 178 |
| Charpy impact strength, 23°C | 150 | kJ/m² | ISO 179/1eU |
| Charpy impact strength, -30°C | 145 | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 5.5 | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 5.5 | kJ/m² | ISO 179/1eA |
| Ball indentation hardness, H 358/30 | 132 | MPa | ISO 2039-1 |
| Poisson's ratio | 0.38 ^[C] | | |
| [C]: Calculated | | | |
| Thermal properties | | | |
| Melting temperature, 10°C/min | 166 | °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | | °C | ISO 75-1/-2 |
| Coefficient of linear thermal expension | | F C/V | 100 75-1/-2 |

| Melting temperature, 10°C/min | 166 | °C | ISO 11357-1/-3 |
|-------------------------------------------------|-----|-------|----------------|
| Temperature of deflection under load, 1.8 MPa | 90 | °C | ISO 75-1/-2 |
| Coefficient of linear thermal expansion | 140 | E-6/K | ISO 11359-1/-2 |
| (CLTE), parallel | | | |
| Coefficient of linear thermal expansion (CLTE), | 140 | E-6/K | ISO 11359-1/-2 |
| normal | | | |

Physical/Other properties

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|-------------------------------|------------------------|----------------|
| Humidity absorption, 2mm | 0.2 % | Sim. to ISO 62 |
| Water absorption, 2mm | 0.65 % | Sim. to ISO 62 |
| Density | 1400 kg/m ³ | ISO 1183 |

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Injection

| Drying Recommended | no | |
|---------------------------------|----------|-----|
| Drying Temperature | 100 | °C |
| Drying Time, Dehumidified Dryer | 3 - 4 | h |
| Processing Moisture Content | ≤0.2 | % |
| Melt Temperature Optimum | 195 | °C |
| Min. melt temperature | 180 | °C |
| Max. melt temperature | 210 | °C |
| Screw tangential speed | ≤0.3 | m/s |
| Mold Temperature Optimum | 100 | °C |
| Min. mould temperature | 80 | °C |
| Max. mould temperature | 120 | °C |
| Hold pressure range | 60 - 120 | MPa |
| Back pressure | 4 | MPa |
| Ejection temperature | 133 | °C |

Characteristics

Processing Injection Moulding

Delivery form Granules

Special characteristics Low wear / Low friction, High Flow, Low emissions

Additional information

Injection molding Processing

See Processing Guide and Involve Celanese FTS support to obtain best quality

parts

Processing Notes Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be

necessary to prevent splay and odor problems

Storage

The product can then be stored in standard conditions until processed.

Automotive

OEM STANDARD ADDITIONAL INFORMATION

Mercedes-Benz DBL5404 BQF

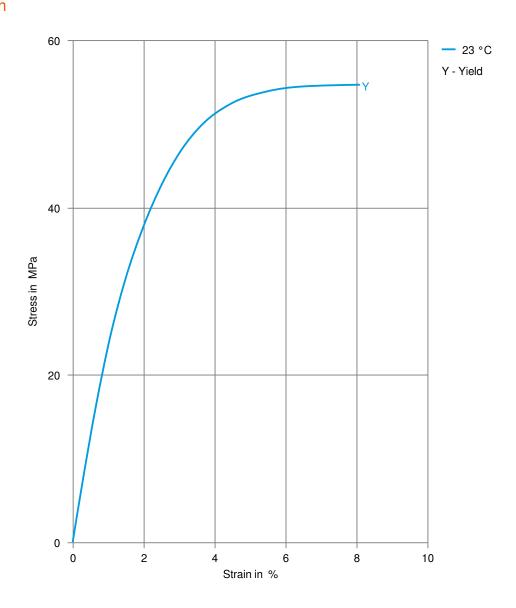
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Stress-strain

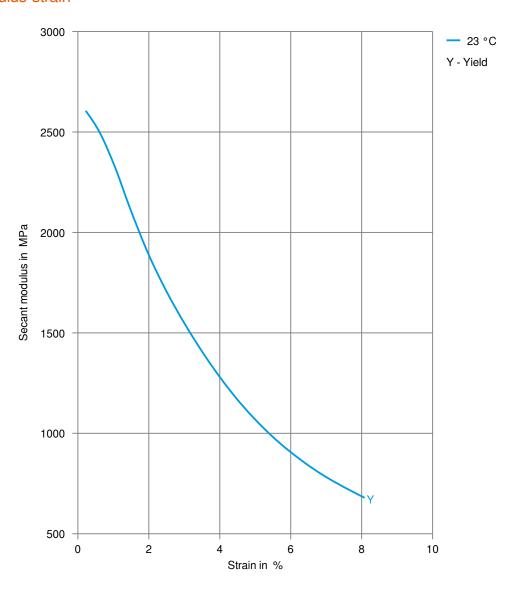


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Secant modulus-strain

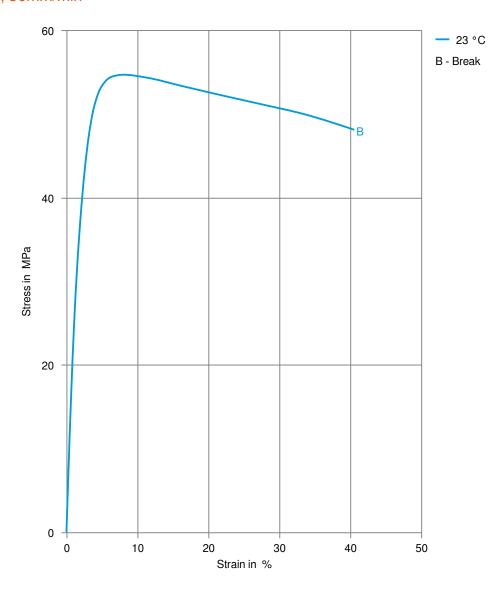


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Stress-strain, 50mm/min

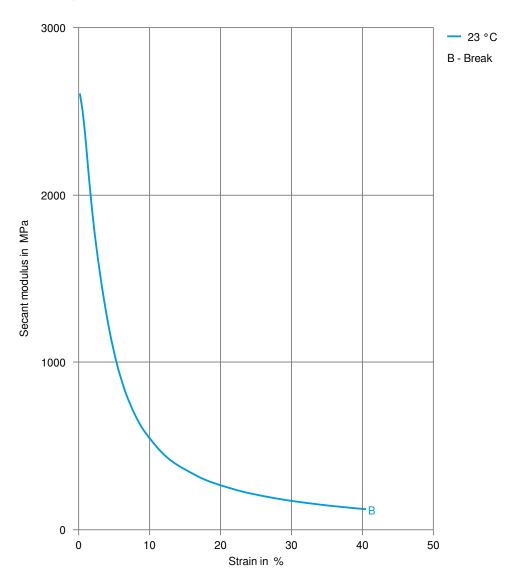


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Secant modulus-strain, 50mm/min

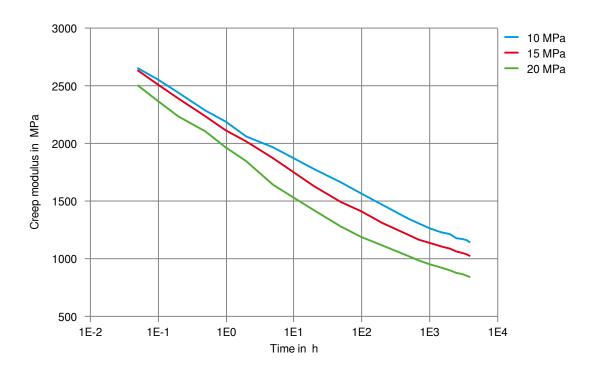


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Creep modulus-time 23°C



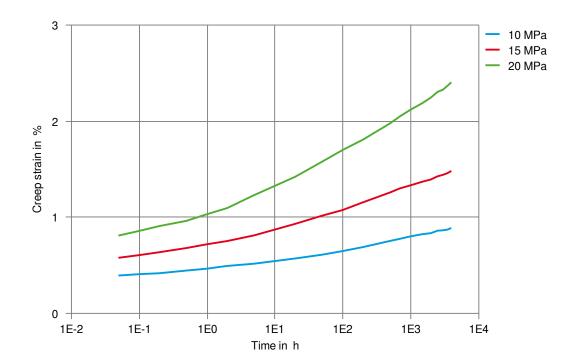
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Creep strain-time 23°C



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