

What is POM-C GLD350 blue

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POM-C, lubricant-modified (GLD 350)

POM-C GLD350 blue is a polyoxymethylene copolymer with an even higher content of incorporated solid lubricant than GLD 160. The compound is designed for minimum friction and wear, is particularly lightweight with a density of only 1.33 g/cm³, and in its blue version is easy to identify visually – for example in food-processing lines.

Properties

POM-C GLD350 blue achieves very low coefficients of friction and enables smooth, jerk-free sliding movements without external lubrication, even at high sliding speeds. With a yield stress of 45 MPa and a tensile modulus of 2,200 MPa, the material remains sufficiently loadable for guides and sliding elements; the low moisture absorption (0.6 %) and the continuous service temperature of 100 °C correspond to those of the GLD family. According to the resin manufacturer, the compound has been assessed for food contact.

The high solid lubricant content reduces strength, hardness (Shore D 77) and heat deflection temperature (HDT 85 °C) compared to standard POM-C. Like all POM grades, the material is not resistant to strong acids.

Advantages

- Very low friction and wear, no stick-slip
- Suitable for dry running, even at high sliding speeds
- Low weight (1.33 g/cm³), blue colouring for visual detectability
- Good machinability

Disadvantages

- Lower strength and hardness than standard POM-C
- Lower heat deflection temperature (HDT 85 °C)
- Not resistant to strong acids

Processing

POM-C GLD350 blue is one of the easiest engineering plastics to machine: sawing, turning, milling, drilling and thread cutting are straightforward with standard HSS or carbide tools, chips break short and surfaces come out clean. Good cooling via chip removal avoids heat build-up.

For tight tolerances and thick-walled parts, we recommend intermediate annealing to relieve machining stresses; the low moisture absorption makes conditioning unnecessary.

Typical Applications

POM-C GLD350 blue is used wherever the highest sliding performance without lubrication is required – for example in conveyor and packaging systems, in the food industry and in mechanical engineering.

- Wear strips, chain guides and curve guides
- Plain bearings and bushings in dry running
- Format and guide parts in food-processing lines

Typical Properties

- Stronger lubricant modification than GLD 160
- Reduced friction and wear
- Blue colouring for visual detectability

Product Examples

- Wear strips and chain guides
- Plain bearings and bushings
- Format and guide parts

Typical Industries

- Conveyor Technology
- Packaging Industry
- Food Industry
- Mechanical Engineering

	Test Method	Unit	Value
General Properties			
Density	DIN EN ISO 1183-1	g / cm ³	1.33
Water absorption	DIN EN ISO 62	%	0.60
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB / HB
Mechanical Properties			
Yield stress	DIN EN ISO 527	MPa	45
Elongation at break	DIN EN ISO 527	%	10
Tensile modulus of elasticity	DIN EN ISO 527	MPa	2.200
Notched impact strength	DIN EN ISO 179	kJ / m ²	4.0
Ball indentation hardness	DIN EN ISO 2039-1	MPa	120
Shore hardness	DIN EN ISO 868	scale D	77
Thermal Properties			
Melting temperature	ISO 11357-3	°C	165
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	120
Service temperature, long term	Average	°C	-50 ... 100
Service temperature, short term (max.)	Average	°C	140
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	85