

DMR Material PA66M

Black MoS2 Lubricated Nylon 66 Engineering Thermoplastic (PA66)



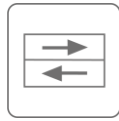
MATERIAL DATA SHEET (Version 5.0 – 05.2019)



Wear Resistance



Compressive Strength



Low Friction

Description

DMR material PA66M is an engineering thermoplastic which has been modified by the inclusion of an internal MoS2 filler to provide lower friction values and better sliding properties in comparison to the standard unfilled grade. It is commonly referred to as Moly filled Nylon 6.

It has high mechanical, flexural and compressive strength, good rigidity and excellent wear resistance. These attributes make PA66M a highly versatile engineering thermoplastic material which can be used for a wide range of components in multiple industries. In comparison to Nylon 6 the impact strength of the modified polyamide 66 is reduced.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Shore Hardness	Shore D	DIN ISO 53505	82
Yield point	ISO 527	MPa	83
Elongation at break	ISO 527	%	40
Tensile Modulus of elasticity	ISO 527	MPa	3100
Moisture Absorption (24 HR / 96H @23°C)	ISO 62	%	0.2/0.4
Density	ISO 1183-1	g/cm ³	1.15
Surface resistivity	IEC 60093	Ohm	10 ¹⁴
Volume resistivity	IEC 60093	Ohm	10 ¹⁴
Melting Point Tg	ISO 11357	°C	253
Coefficient Of Linear Thermal Expansion*	ISO 11359-2	10 ⁻⁵ K ⁻¹	10
Service temperature (Long term)		°C	-30 to +100
Service temperature (short term - max)		°C	+170

* (Average between +23 to +60°C)

Main Characteristics

- High tensile strength
- High Compressive strength
- High Flexural strength
- Good wear and properties
- Low friction / Good sliding properties

Typical products

- Anti-Extrusion / Back-up Rings
- Thrust washers
- Bearing rings / guide rings
- Bushes
- Scraper seals

Typical Applications

Due to its high compressive and flexural strength combined with low friction and good wear resistance, PA66M is a good material choice for guide rings, bearing rings, bearing bushes, thrust washers, scraper rings and back-up rings commonly used in the sealing industry. It is not suitable for impact resistant applications.

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