

DMR Material PA6M

Black MoS2 Lubricated Nylon 6 Engineering Thermoplastic (PA6)



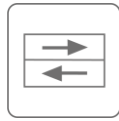
MATERIAL DATA SHEET (Version 5.0 – 05.2019)



Wear Resistance



Compressive Strength



Low Friction

Description

DMR material PA6M is an industry standard engineering thermoplastic which has been modified by the inclusion of an internal MoS2 filler to provide lower friction values, better sliding properties and lower water absorption 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 PA6M a highly versatile engineering thermoplastic material which can be used for a wide range of components in multiple industries.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Shore Hardness	Shore D	DIN ISO 53505	80
Yield point	ISO 527	MPa	75-80
Elongation at break	ISO 527	%	>20
Tensile Modulus of elasticity	ISO 527	MPa	3800-4000
Moisture Absorption in air (23°C / 50% RH)	ISO 62	%	2.1
Moisture Absorption 24 hrs saturation	ISO 62	%	6.3
Density	ISO 1183-1	g/cm ³	1.15
Surface resistivity	IEC 60093	Ohm.m	>1x10E12
Volume resistivity	IEC 60093	Ohm.m	>1x10E13
Melting Point Tg	ISO 11357	°C	221
Heat Deflection Temperature	ISO 75	°C	80
Coefficient Of Linear Thermal Expansion*	ISO 11359-2:1999	°C-1	8.51E-05
Service temperature (Long term)		°C	-40 to +105
Service temperature (short term - max)		°C	-100 to +170

* (Average between +23 to +55°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, PA6M 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.

Tel: 0044 (0) 114 243 2777 . Fax: 0044 (0) 114 242 2300 . Mail: sales@dmrseals.co.uk . Web: www.dmrseals.co.uk