PE2000+MoS2 - Polyethylene 2000 + MoS2

Other material names PE2000+MoS2: PE-UHMW with MoS2, Moly, Molybden disulfid
Material group: Polyethylene

The material is based on high molecular weight polyethylene. This material is self-lubricating and has a low sliding friction coefficient. The good sliding properties of the core product PE2000 have been improved even further. This involved improving already impressive material properties. For example, the self-lubricating character of this material has resulted in an improved sliding friction coefficient in comparison with PE1000. Material is ideally suited for use in sliding guides, slide segments, and slide bearings.

Color of material:

Gray

Typical applications:

- chain and belt running guides
- conveying and slide elements
- friction bearings
- cogwheels and drive wheels
- turnaround wheels and curved tracks

The material is used in:

Beverage industry
Food industry
Automobile industry

Features:

- Self-lubricating - lower sliding friction coefficient
- Increased wear resistance
- Excellent impact/shock resistance
- Good resistance to chemicals
- Good anti-adhesion properties
- Electrically isolating
- Better resistance to UV rays than PE1000 green/natural

Material availability: Some sizes are in stock

Material properties table

Specific weight	0.95 g/cm³
Yield strength	17 N/mm²
Tensile strength	33 N/mm²
Allowable mean pressure deformation 1%	4.00 N/mm²
Allowable mean pressure deformation 2%	7.50 N/mm²
Allowable mean pressure deformation 5%	13.50 N/mm²
p.v dry limit	0.08 MPa.m/s

Tensibility	350 %
Tensile modulus	750 N/mm²
Impact toughness	bez zlomu
Notched toughness	>120 kJ/m²
Ball hardness	40 N/mm²
Friction coefficient	0.08
Sliding wear	0.04 um/km
Abrasive wear	80
Antistatic material	No
Permittivity	2.10
Electrical strength	45 kV/mm
Specific internal resistance	10^(12) Ω
Specific surface resistance	10^(12) Ω.cm
Melting point	135 °C
Thermal expansion	20 10^(-5)/K
Thermal conductivity	0.41 W/(K.m)
Permanent use temperature	-200 ; 80 °C
Transient temperature of use	-200 ; 90 °C
Absorbability	0,01 %
Water absorption	0,1 %
Resistance - oils	resistant
Acid resistance	resistant
Durability - alcali	resistant
Food contact	No

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All standard and special materials are designed to meet your specific requirements. Their mechanical, thermal, and electrical properties and chemical resistance satisfy the most demanding requirements and this allows them to work even in the most difficult conditions. If you need advice when choosing the appropriate material for your application, please contact us. We'll gladly advise you. You can utilize the long-term experience of our technical advisors free-of- charge, who can visit you right in your operation and solve your requirements for engineering plastics directly at the site of their usage.

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