

M SEALS UHM-GD60

Green Ultra High Molecular Weight Polyethylene

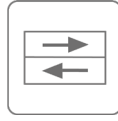
MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Wear Resistance



Low Water Absorption



Low Friction

Description

M Seals material Green UHM-GD60 is a member of the thermoplastic polyethylene group. It is a very tough material, with extremely high impact strength, excellent resistance to corrosive chemicals, excellent low-temperature characteristics and a coefficient of friction comparable to PTFE but with much better abrasion resistance.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Green
Shore Hardness	ISO 868	Shore D	60
Modulus of elasticity	ISO 527-1	Mpa	700
Tensile Strength at Yield	ISO 527-1	Mpa	700
Moisture Absorption in air (23°C / 50% RH)	ISO 62	%	0.01
Density	ISO 1183-1	g/cm ³	0.93
Coefficient Of Linear Thermal Expansion	ISO 11359-1	10 ⁻⁵ K ⁻¹	18
Coefficient Of Friction**		μ	0.25
Service temperature (Long term)		°C	-200
Service temperature (short term - max)		°C	+80

** coefficient of friction dry dynamic Steel 16MnCr5 v=0,6m/s; p=0,05 MPa; t=5h

Main Characteristics

- High Impact strength
- Low moisture uptake
- Good wear and sliding properties
- Corrosive chemical resistance
- Excellent low-temperature properties

Typical Products

- Anti-Extrusion / Back-up Rings
- Bearing rings / guide rings
- Spring Energised Seals
- Scraper seals
- Bespoke parts

Typical Applications

Due to its excellent wear resistance, low moisture uptake and excellent sliding properties, Green UHM-GD60 is an excellent material choice for guide rings, bearing rings, valve seats, scraper rings and spring energised seals commonly used in the sealing industry. UHM-GD60 is limited by its upper temperature limit.

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