

DMR Material UHM-GD60

Green Ultra High Molecular Weight Polyethylene

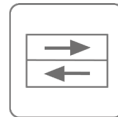
MATERIAL DATA SHEET (Version 5.0 – 05.2019)



Wear Resistance



Low water absorption



Low Friction

Description

DMR 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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