

M SEALS DPU-BLK72

Hard grade hydrolysis resistant polyurethane

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Wear Resistance



Hydrolysis Resistance



Compressive Strength

Description

M Seals material DPU-BLK72 is a hydrolysis resistant thermoplastic polyurethane which has been modified to provide increased hardness values. This material provides excellent tensile, modulus and tear strength values. All these attributes make DPU-BLK72 an excellent material choice for high pressure / high load sealing applications where chemical compatibility is not an issue.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183	g/cm ³	1.21
Hardness	ISO 868	Shore D	70 (+/-3)
Tensile Strength	DIN 53504	MPa	>50
Modulus 100%	DIN 53504	Mpa	>30
Elongation at break	DIN 53504	%	>150
Tear Strength	ISO 34-1	kN/m	>110
Minimum service temperature		°C	-20
Maximum service temperature		°C	+110

Main Characteristics

- Good tensile strength
- Increased hardness
- Increased wear resistance
- Extrusion resistant
- Hydrolysis resistance

Typical Products

- O-Ring energised composite sealing element
- Back-up Rings
- Wiper Seals / Scraper Seals
- Chevron header & spreader rings
- Bespoke Parts

Typical Applications

DPU-BLK72 is typically used in high pressure applications where the limits of softer polyurethane compounds have been exceeded. Due to the increased hardness of this material it can be difficult to install and is not recommended for common dynamic sealing arrangements other than O-Ring energised composite type seals. When the material is used as a composite style seal it can be useful for applications where the hardware counter surface required for this type of seal is rougher than what is recommended.

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