

# M SEALS SPU-G95

## Low Friction Internally Lubricated Polyurethane

### MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Low Friction



Hydrolysis Resistance



#### Description

SPU-G95 is grey/black premium hydrolysis-resistant polyurethane which has been modified for low friction use via the addition of an MoS<sub>2</sub> (Molybdenum disulphide or Moly) internal lubricant. This material is recommended for applications that require low friction operation, stick-slip prevention, a reduction in seal wear and/or in applications where the fluid has poor lubrication properties.

#### Physical Properties

Property	Test method	Unit	Typical value
Colour			Grey/Black
Density	ISO 1183-1	g/cm <sup>3</sup>	1.19
Hardness @ 23°C	ISO 7619-1	Shore A	96
Tensile Strength	DIN 53504	N/mm <sup>2</sup>	≥45
100% Modulus	DIN 53504	N/mm <sup>2</sup>	≥12
Elongation at break	DIN 53504	%	≥350
Tear strength	ISO 34-1	kN/m	≥80
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	≤30
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	≤35
Minimum service temperature		°C	-20
Maximum service temperature		°C	+110

#### Main Characteristics

- Excellent low friction behaviour
- Excellent hydrolysis resistance
- Reduced seal wear
- Can help prevent stick-slip in critical applications
- Internally lubricated

#### Typical Products

- O-Ring energised U-Seals
- Rod & Piston composite seals
- Pneumatic seals
- Wiper seals
- Rotary seals

#### Typical Applications

SPU-G95 has been developed to replace standard polyurethane materials working in dynamic applications that require low-friction operation or those suffering from stick-slip issues. It is commonly used to produce O-Ring energised U-Seals, Wiper seals, Rotary seals and can normally be utilised up to 400 bar pressure in standard hydraulic applications and up to 700 bar pressure with the use of a separate back-up ring.

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