

M SEALS MPU-G85

Soft Grade Polyurethane

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Elastic Properties



Description

MPU-G85 is one of our soft grade Polyurethanes which has excellent elastic behaviour and is a very flexible material. Due to the excellent flexibility of this material it is much easier to install and is useful for applications that may require a high degree of compression and/or deflection.

MPU-G88 can be used in Mineral, Vegetable and Silicone oils. It should not be used in Steam, Solvents, Concentrated Alcohols or Acids and HFD fluids.

The use of MPU-G85 in water or water-based fluids such as HFA, HFB and Water Glycol (HFC) fluids should be avoided or limited to +40°C, otherwise material degradation can occur.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Sage Green
Density	ISO 1183-1	g/cm ³	1.15
Hardness @ 23°C	DIN 53505	Shore A	85
100% Modulus	DIN 53504	N/mm ²	≥ 6.2
Tensile Strength	DIN 53504	N/mm ²	≥ 36
Elongation at break	DIN 53504	%	≥ 580
Tear strength	ISO 34-1	kN/m	≥ 99
Compression set (24 Hours @ 70°C, 25%)	ISO 815-1	%	≤ 41
Minimum service temperature		°C	-40°C
Maximum service temperature		°C	+95°C

Main Characteristics

- Good elastic behaviour
- Excellent flexibility
- Easy installation

Typical Products

- U-Seals
- Wiper seals
- Piston seals

Typical applications

Due to the good flexibility of this material, it is an excellent choice to replace standard Nitrile elastomers in hydraulic or pneumatic applications where its extra abrasion resistance may be required. While MPU-G85 is resistant to most types of oil, due to the possible degradation in oil in water emulsions, water glycols and general water power applications, care should be taken not to exceed working temperatures of +40°C when using this material in water or water-based fluids. The material can operate up to 200 bar working pressure as a standalone product and up to 400 bar when seals are incorporated with anti-extrusion / back-up ring.