

Polyurethane Toro-RX60-D

General

Toro-RX60-D is a hydrolysis-resistant (H-PU), cast thermoset polyurethane elastomer, based on TDI Polyol with specialized additives. Toro-RX60-D is a robust and reliable choice for sealing applications, with a hardness of 60 shore D gives excellent extrusion resistance and is used as a dynamic sealing element in composite seals, making it a popular material for most hydraulic applications.

Physical Properties

Density:		g/cm ³	1.16 ±0,03
Hardness at 20°C:	ASTM D 2240-97	Shore A	65 ±2
Hardness at +80°C:	ASTM D 2240-97	Shore A	63 ±2
100% Modulus:	DIN ISO 37	N/mm ²	39.8
Tensile strength:	DIN ISO 37	N/mm ²	46.8
Elongation at break:	DIN ISO 34-1	%	380
Tear strength (without nick):	DIN ISO 34-1	kN/m	146.5
Tear strength (with nick):	DIN ISO 34-1	kN/m	94.3
Resilience:	ASTM D 2632-96	%	40
Abrasion loss:	ASTM D 5963	mm ³	30
Compression set, 22h, 70°C:	DIN ISO 815-1	%	N/A

Physical Properties

Temperature Range: -5°C to +90°C

Chemical Resistance:

Resistant To: Water up to 90°C, Sea Water, Mineral Oils, Vegetable Oils, Silicone Oils, Ozone, Oxygen (cold), HFA fluids, HFB fluids

Not Resistant To: Steam, conc. acids and alkalis, conc. Alcohols, Solvents, HFD fluids, >70°C petroleum

Main Application

Toro-RX60-D is recommended for static and dynamic application seals, mostly used for back-up or retainer rings up to 150 bar pressure in standard hydraulics or machinery with wider metal tolerances. Due to its outstanding hydrolysis resistance, it can be used in the most common hydraulic fluids, oil in water emulsions but also water power applications.

Analysis and Evaluation

The values presented in this document are based on rigorous testing conducted during the development and production of this material. These tests were performed on standard test specimens, as specified in the relevant industry standard, within a controlled laboratory environment. It is important to note that testing on materials that do not conform to the specified standard, or that deviate in their composition, production process, dimensions, or age from the material tested, may yield different results. The data provided represents our current empirical findings and does not relieve the processor or user from their responsibility to thoroughly evaluate the suitability of the material for their specific application.

We retain the right to update this data sheet periodically as new empirical data becomes available.