

AF1009 Data Sheet U500-R95

Polyurethane U500-R95– Red

General

U500-R95 is a cast polycarbonate based, hydrolysis-resistant polyurethane. Its excellent physical properties such as high abrasion resistance, high extrusion resistance as well as its flexibility make it a universal material for seal applications.

Physical properties

Density	DIN 53479	g/cm ³	1,1
Hardness at +20°	DIN 53505	Shore A	95
Hardness at -5°	DIN 53505	Shore A	96
Hardness at +80°	DIN 53505	Shore A	93
Modulus	DIN 53504	N/mm ²	14,6
Tensile strength	DIN 53504	N/mm ²	62
Elongation at break	DIN 53504	%	350
Tear strength	ISO 34-1	kN/m	166
Rebound resilience	DIN 53512	%	40
Compression set: 70°C, 24 hour*	DIN 53517	%	28
Compression set: RT, 72 hour*	DIN 53517	%	14
Compression set: 100°C, 24 hour*	DIN 53517	%	33
Min. service temperature		°C	-30
Max. service temperature		°C	125

*Compression set: 25% deflection.

Chemical resistance

Water up to 90°	R	Vegetable oils	R
Sea water	R	Silicone oils	R
Steam	U	Biodegradeable oils	R
HFA, HFB fluids	R	Fuels	S
HFC fluids	S	Ozone, oxygen (cold)	R
HFD fluids	U	Air up to 100°	R
Mineral oils	R	Air up to 150°	U

Key to chemical resistance: R = Resistant S = Suitable U = Unsuitable

Main application

Static and dynamic applications, mostly used for U-seals, wipers and packings up to 400 bar pressure in standard hydraulics. Due to its hydrolysis resistance it can be used for water applications, applications in the mining industry and in presses

Analysis and evaluation

The mentioned properties are only valid for test pieces of the corresponding ISO, DIN and ASTM standards. They cannot be directly related to seals, gaskets and other sealing products and should only be used as a general guide. Contact with improper fluids might influence the application properties.

Issued July 2013 AFT Fluorotec Technical Department.

All information is based on typical test results performed under specific conditions and limited sample size. This does not represent a legally binding guarantee of certain properties or the suitability for specific applications.

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