

AF1011 Data Sheet U520-OR95-HT

Polyurethane U520-OR95-HT – Orange

General

U520-OR95-HT is a hydrolysis-resistance (H-PU) casted polyurethane based on MDI, polycarbonate polyol and certain additives. Due to the excellent stability of the physical properties at higher temperatures and outstanding thermal ageing resistance, compared to other polyurethanes it is recommended for applications where temperature and mechanical stress of the material reach the limits of standard polyurethanes.

Physical properties

Density	DIN 53479	g/cm ³	1.09
Hardness at 23°C	DIN 53505	Shore A	96 +/-2
Hardness at +100°C	DIN 53505	Shore A	93 +/-2
100% Modulus	DIN 53504	N/mm ²	>10
100% Modulus	DIN 53504	N/mm ²	>25
Tensile strength	DIN 53504	N/mm ²	>45
Elongation at break	DIN 53504	%	>350
Tear strength	DIN 53515	kN/m	>110
Compression set: 70°C*	DIN 53517	%	<25
Compression set: 100°C*	DIN 53517	%	<30
Compression set: 125°C*	DIN 53517	%	<65
Min. service temperature		°C	-30
Max. service temperature		°C	135

*Compression set: 25% deflection, 24 hour.

Chemical resistance

Water up to 90°	R	Vegetable oils	R
Sea water	R	Silicone oils	R
Steam	U	Concentrated acids and lyes	U
HFA, HFB fluids	R	Ozone, oxygen (cold)	R
HFD fluids	U	Concentrated alcohols	U
Mineral oils	R	Solvents	U
Diluted acids and lyes	R		

Key to chemical resistance: R = Resistant U = Unsuitable

Main application

Static and dynamic applications mostly used for U-seals, wipers, packings and oil seals up to 400 bar pressure in various applications especially in those where the combination of temperature, pressure and wear resistance of rubber and other polyurethane materials reach their limits, but also where heat generation, because of friction, is expected.

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.

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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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