

AF1012 Data Sheet U540-V195-CR

Polyurethane U540-V195-CR – Violet

General

U540-V195-CR is a hydrolysis-resistance (H-PU) casted polyurethane based on MDI, polycarbonate polyol and certain additives. It is resistant against the common used CIP-fluids and shows low swelling effects in non-polar fluids like mineral oils or fatty foodstuff.

Physical properties

Density	DIN 53479	g/cm ³	1.16
Hardness at 23°C	DIN 53505	Shore A	95 +/-2
Hardness at +100°C	DIN 53505	Shore A	92 +/-2
100% Modulus	DIN 53504	N/mm ²	>10
100% Modulus	DIN 53504	N/mm ²	>30
Tensile strength	DIN 53504	N/mm ²	>45
Elongation at break	DIN 53504	%	>300
Tear strength	DIN 53515	kN/m	>120
Compression set: 70°C*	DIN 53517	%	<25
Compression set: 100°C*	DIN 53517	%	<40
Min. service temperature		°C	-30
Max. service temperature		°C	115

*Compression set: 25% deflection, 24 hour.

Chemical resistance

Water up to 90°	R	Vegetable 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	CIP-fluids	R

Key to chemical resistance: R = Resistant U = Unsuitable

Main application

Static and dynamic applications mostly used for U-seals, wipers and packings up to 400 bar pressure in various applications especially in those where the combination of temperature, pressure and wear resistance of rubber materials reach their limits, and improved chemical resistance is required. U540-V195-CR can also be used in applications with contact to food stuff, especially in such application where the cleaning process with CIP fluids is done.

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. The compound meets the specifications of the positive list to 21 CFR 177.2680 'Polyurethane resins' of the Food and Drug Administration (FDA), USA.

Issued June 2015 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.

AFT Fluorotec

Solutions and components in Fluoropolymer Plastics

Phone: +44 (0) 1992 515880
Fax: +44 (0) 1992 554490
Email: info@fluorotec.com
Website: www.fluorotec.com