Polyurethane U540-VI95-CR – violet (Chemical resist. Polyurethane)

General

U540-VI95-CR is a hydrolysis–resistant (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 ISO 1183-1	g/cm³	1,16 ±0,03
Hardness at 23°C:	DIN ISO 7619-1	Shore A	95 ±2
Hardness at +100°C:	DIN ISO 7619-1	Shore A	92 ±2
100% Modulus:	DIN 53504	N/mm²	≥ 10
300% Modulus:	DIN 53504	N/mm²	≥ 30
Tensile strength:	DIN 53504	N/mm²	≥ 45
Elongation at break:	DIN 53504	%	≥ 300
Tear strength:	DIN ISO 34-1	kN/m	≥ 120
Compression set, 24h, 70°C, 25%:	DIN ISO 815-1	%	≤ 25
Compression set, 24h, 100°C, 25%:	DIN ISO 815-1	%	≤ 40

* mentioned values are subject to a tolerance of +/- 25%

Temperature range: -30°C to 115°C

Chemical resistance

Resistant to: Water up to 90°C, CIP-fluids, Mineral Oils, Vegetable Oils, Ozone, Oxygen (cold), HFA fluids, HFB fluids, diluted Acids and Lyes

Not Resistant to: Steam, conc. Acids and Lyes, conc. Alcohols, Solvents, HFD fluids

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-VI95-CR can also be used in applications with contact to foodstuff, especially in such applications where the cleaning process with CIP fluids is done.

Available certificates

- Conform to (EC) No 1935/2004 and (EC) No 10/2011
- Conform to positive list of FDA 21 CFR 177.1680
- 3A sanitary standard

Analysis and Evaluation

Values mentioned above are based on several tests performed during development and production of the material. Tests have been performed on standard test pieces specified within the relevant standard within the laboratory. Tests performed on any other pieces which are not related to the corresponding standard or made out of any (semi)finished part or any other part deviating in production process, dimension or age of the material from above may result in different values. The data represents our present empirical values and does not disengage the end user from their obligation to examine the usage of the material for each specific application.

We reserve the right to update this data sheet from time to time if new empirical values are available. Errors and omissions excepted.

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