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Material Data Sheet S102-R85

Silicone S102 - red (FDA, peroxide cross linked)

General

S102-R85 is a red Methyl Silicone Rubber, commonly referred to as Silicone. Silicone materials are often used in hot air and in applications, where chemicals and foodstuff are in contact with the sealing material. Because of lower mechanical properties Silicone materials should not be used for dynamic applications. Silicone S102 – red is approved for the use of applications in contact with foodstuff.

Physical properties

Density:	DIN 53479	g/cm³	1,525	±0,03
Hardness at 23°C:	DIN 53505	Shore A	85	±5
100% Modulus:	DIN 53504	N/mm²	6,8	·
Tensile strength:	DIN 53504	N/mm²	7,7	·
Elongation at break:	DIN 53504	%	121,1	·
Tear strength:	DIN 53515	kN/m	24,2	·
Rebound resiliance:	DIN 53512	%	50,0	·
Compression set, 22h, 70°C, 25%:	DIN 53517	%	4,4	·
Compression set, 22h, 100°C, 25%:	DIN 53517	%	4,1	·
Compression set, 22h, 175°C, 25%:	DIN 53517	%	10,2	·

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

Temperature range: **-55°C to 210°C**

Chemical resistance

Resistant to:	Water up to 90°C, Steam below 120°C, HFA, HFB, HFC Fluids, HFD-R, HFD-S Fluids, Vegetable Oils, Ozone, Oxygen, Air up to 200°C
Not Resistant to:	Silicone Oils, Fuels

Main application

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). Due to its low mechanical properties it should be used for static applications only. Chemical and food industry.

Available certificates

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

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 represent our present empirical values and do not disengage the processor or user from his obligation to examine the usage of the material for his specific application.

