Material Data Sheet S103-BL85

Silicone-blue S103 (FDA, peroxide cross linked)

General

S103-BL85 is a blue 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 S103 – blue is approved for the use of applications in contact with foodstuff.

Physical properties

Density:	DIN 53479	g/cm^3	1,54
Hardness at 20°C:	DIN 53505	Shore A	85 ±5
Tensile strength:	DIN 53504	N/mm^2	7,4 ±15%
Elongation at break:	DIN 53504	%	120 ±20%
Modulus 100%:	DIN 53504	N/mm	-
Tear strength:	DIN 53507B	N/mm	10
Compression set: 70h/RT	DIN 53517A	%	-
Compression set: 22h/70°C	DIN 53517A	%	-
Compression set: 22h/100°C	DIN 53517A	%	-
Compression set: 22h/175°C	DIN 53517A	%	18,5 ±20%
Min. service temperature:		°C	-55
Max. service temperature:		°C	180
Short time max. service temp. in air:		°C	270

Chemical resistance

Water up to 90°	R	Fuels	U
Steam below 120°	R	Ozone, Oxygen	R
HFA, HFB, HFC fluids	R	Air up to 200°C	R
HFD-R, -S	R		
Mineral oils	S		
Vegetable oils	R		
Silicone oils	U		

Key to chemical resistance: R = resistant S = suitable U = unsuitable

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.

Analysis and Evaluation

The mentioned properties are only valid for testpieces of the corresponding ISO, DIN and ASTM standards. They cannot be directly related to seals, gaskets and other sealing products and should be used only as a general guide.