

DMR Material SIL-R85

Red FDA compliant Silicone Elastomer Material



MATERIAL DATA SHEET (Version 5.0 – 05.2019)



FDA compliant



EC1935-2004 compliant



ADI free

Description

SIL-R85 is an 85a Shore FDA compliant Silicone elastomer material which has been migration tested to comply with FDA requirements CFR 21 177.2600 for food contact use. Silicone elastomers exhibit excellent chemical and thermal resistance against a wide range of media and those commonly found within the food industry.

We do not recommend the use of Silicone elastomers in dynamic applications due to their poor abrasion resistance.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Red
Density	ISO 1183-1	g/cm ³	1.525
Hardness	ISO 7619-1	Shore A	85 (+/-5)
Tensile Strength	DIN 53504	MPa	7.7
100% Modulus	DIN 53504	MPa	6.8
Elongation at break	DIN 53504	%	130
Compression set (24 Hours @ 100°C, 25%)	ISO 815-1	%	4.1
Compression set (24 Hours @ 175°C, 25%)	ISO 815-1	%	9.8
Minimum service temperature		°C	-55
Maximum service temperature		°C	+210

Global migration results of FDA extraction on SIL-R85 material samples (mg/inch²)

FDA test method	Reflux test conditions	Mean	Limit*	Conclusion
CFR 177.2600 (e)	De-ionised water, 7 hours	2	20	PASS
CFR 177.2600 (e)	De-ionised water, 2 hours	<1	1	PASS
CFR 177.2600 (f)	N-hexane, 7 hours	<1	175	PASS
CFR 177.2600 (f)	N-hexane, 2 hours	<1	4	PASS

Main Characteristics

- CFR 177.2600 FDA Compliant
- Extraction tested and passed
- No tooling required
- ADI free

Typical products

- Triclover seals
- RJT seals
- DIN 11851 D-Seals
- Butterfly valve seals

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