

GENERAL TECHNICAL DATESHEET

SILICONE RUBBER SPONGE GRADE – SIL 16

Silicone – Elastomer: Polydimethylsiloxan / Vinylmethylsiloxan – VMQ

Cellular Structure: Predominately-closed cell with low moisture absorption

Colour: Off white, red iron oxide as well other colours on request

Properties: Suitable / Conform for food, medical, pharmaceutical application but NOT FDA / BfR approved, physiological harmless, bacteriological indifferent, allergy uncommitted, fungicide, non-toxic, non corrosive, non sticky, nonconductive, repeated sterilisable

Resistance: Excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmic radiation, ($>10^5$ GRAYS/ 10^7 RADDS), ionising radiation, weathering and non-ageing. Good resistance to most chemicals, conditionally oil-resistant dependent on type – subject to self-testing

Temperature Range: from approx. -60°C (-76°F) up to approx. $+230^{\circ}\text{C}$ ($+446^{\circ}\text{F}$), RIOX / red iron oxide for short term only $+250^{\circ}\text{C}$ ($+482^{\circ}\text{F}$), at temperatures as high as $+300^{\circ}\text{C}$ ($+662^{\circ}\text{F}$) useful lives of up to 10 hours can be achieved.

MECHANICAL PROPERTIES	SPEC. LIMITS	TYPICAL VALUE	TEST- METHODE
HARDNESS ** / #	ca.10-15 \pm 5°Sh.A #	ca. 10 \pm 5° Shore A #	ASTM D2240
DENSITY * / **	ca. 300 \pm 100 Kg/m ³	ca. 250 Kg/m ³	BSENISO 845
COMPRESSION STRESS 40% STRAIN ***	90 \pm 40 kPa	90 kPa	BSENISO 3386 Part 1,2
COMPRESSION SET	25% max.	ca. 15 – 20 % (50%CP@22h/70°C)	BSENISO 1856 A - 24h Recovery
TENSILE STRENGTH	0,75 N/mm ² min.	1,2 N/mm ²	BSENISO 1798
ELONGATION TO FAIL.	100 % Min.	200%	BSENISO 1798
THERMAL CONDUCT.	6,4x10 ⁻² Wm ⁻¹ k ⁻¹	(0,064 W/mk +/-25%)	VDE 0304
BRIDLE POINT	- 80°C	(-112°F)	ASTM D746
FLAMMABILITY CHARACTERISTICS / LIMITING OXYGEN INDEX	Low level of toxic fume when burnt. LOI 24,0% acc. to BS 2872 Part 1	FAR 25/JAR 25/CS 25 App. F, Part 1, (a)(1)(iv) and (a)(1)(v) horizontal flammability tests	Not easy flammable, non flammable droplets
WRAS / WRC APPROVED	Fulfills the requirements of Water Research Centre as BS 6920 (Drinking Water Regulations), conform germane KTW / DVGW		

* Density measured on 25 mm diameter cord sample. The density of different sizes will be different from that stated here.

** Hardness measured on 10 mm thick sample. At less than 10mm the measured hardness will increase with density.

*** Compr. Stress measured on 25 mm thick sample. The compr. stress increases with the density as thickness is reduced.

It is not possible to perform a Shore A hardness test on sponge material. These values are provided as a guideline for comparison to solid materials and as such are not designed for use in specifications.

For further information about physical properties for other sample sizes, please contact the technical department.

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