

Food Grade Cellular Silicone Elastomer Sheeting

Grades

kSil™FDA400

Temperature Range

-60°C to 230°C (-76°F to 446°F)
and up to 250°C (482°F) intermittent

Specifications

Our kSil™FDA sponge range is in compliance with:

American Food and Drugs Administration (FDA)
21 CFR 177-2600

Directive EC 1935/2004

German BfR Recommendation XV - silicone for Food Contact.

This sponge is closed cell with low water absorption and dust ingress protection to IP65.

Silicone rubber products have an excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmic radiation, ionising radiation and weathering in general.

Availability

Mouldings	Sheeting	Gaskets	Cables
○	●	●	○

Extrusions	Compound	Tubing
○	○	○

Availability

- Available in Sheets and Rolls
- Supplied in 1m x 1m (39" x 39") or Roll 1m x 5m (39" x 196").
- Punched/ Water Jet gaskets.
- Available in White and Blue

General Characteristics

Test	Result	Standard
Brittle Point	-80°C (-112 °F)	ASTM D746
Limiting Oxygen Index	24.0 %	BS 2782 Part 1
Thermal Conductivity	$6.4 \times 10^{-2} \text{ Wm}^{-1} \cdot \text{K}^{-1}$	BS 874 Part 2
Radiation Resistance	$>10^5$ Grays (10^7 Rads) typical	

Typical Applications

Food and Beverage, Medical and Pharmaceutical

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Mechanical Properties

Property	Units	Typical Value	Test Method
*Density	kg.m ⁻³ lb.ft ⁻³	420 26	BSENISO 845 ASTM D3674
**Hardness	Shore OO Shore A	60 15	ASTM D2240
***Compression Stress 40% Strain	kPa psi	90 13	BSENISO 3386 part1, 2
Compression Stress 25% Strain	kPa psi	55 8	ASTM D1056
Tensile Strength	MPa psi	0.9 131	BSENISO 1798 ASTM D412
Elongation to Failure	%	500	BSENISO 1798 ASTM D412
Compression Set 50% compression, 24 hours recovery 22 hours @ 70°C (158°F)	%	3.5	BSENISO 1856
50% compression, 24 hours recovery 22 hours @ 100°C (212°F)	%	4.0	ASTM D1056

Extra Information

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

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

The Shore A values are provided as a guideline for comparison to solid materials and as such are not designed for use in specifications. *** Compression Stress measured on samples as defined in BSENISO 3386.

The compressive stress on samples of different dimensions, especially thickness may vary from that quoted here. For further information about physical properties for other sample sizes, please contact the technical department.