

Cellular Silicone Elastomer Sheeting

Grades

kSil™GP200 kSil™GP250 kSil™GP350 kSil™GP400
kSil™GP450 kSil™GP530

Temperature Range

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

Specifications

These products meet the flammability requirements of FAR 25/JAR 25/CS 25 Appendix F, Part 1, (a)(1)(iv) and (a)(1)(v) horizontal flammability test and Automotive Standard PART 571FMVSS302.

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

The density range in white has been approved by the WRAS (Water Regulations Advisory Service) for use in contact with potable water at temperatures up to 85°C (185°F).

The listing number is 1304521.

Environment Resistance

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

- Sheetting supplied in Rolls or individual sheets of 1 metre x 2 metres.
- Widths up to 1000mm.
- Pressure sensitive adhesive backing.
- Punched/Water Jet gaskets.
- Full range of standard colours.
- Capability to colour match.

General Characteristics

Test	Result	Standard
Brittle Point	-80°C (-112°F)	ASTM D748
Limiting Oxygen Index	24.0 %	BS 2782 Part 1
Thermal Conductivity	$6.4 \times 10^{-2} \text{ W.m}^{-1}.\text{K}^{-1}$	BS 874 Part 2
Radiation Resistance	$>10^5$ Grays (10^7 Rads) typical	

Typical Applications

Automotive, Electronics, Energy.
Construction, Heating and Ventilation (HVAC), Industrial, Insulations, Lighting and Marine.

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Mechanical Properties

Property	Units	KSII™GP200		KSII™GP250		KSII™GP360		KSII™GP400		KSII™GP450		KSII™GP530		
		Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Test Method		
*Density	kg,m ³ lb,ft ³	195	256	320	400	460	550	550	550	550	550	550	550	BSENISO 845 ASTM D3674
**Hardness	Shore OO Shore A	35 ±5	42 ±5	55 ±5	65 ±5	70 ±5	80 ±5	80 ±5	80 ±5	80 ±5	80 ±5	80 ±5	80 ±5	ASTM D2240
Compression Stress 40% strain	kPa	50	90	120	165	230	470	470	470	470	470	470	470	BSENISO 3366 part1, 2
Compression Stress 25% strain	psi	4.6	6.4	8.3	9.0	17.4	34.8	34.8	34.8	34.8	34.8	34.8	34.8	ASTM D1056
Tensile Strength	MPa psi	0.6 87	0.6 87	0.75 108	0.75 108	1.5 217	2.0 290	2.0 290	2.0 290	2.0 290	2.0 290	2.0 290	2.0 290	BSENISO 1798 ASTM D412
Elongation to Failure	%	140	145	120	120	130	130	130	130	130	130	130	130	BSENISO 1798 ASTM D412
Compression Set 50% compression - 24 hours recovery	%	15.0	12.0	12.0	10.0	10.0	9.5	9.5	9.5	9.5	9.5	9.5	9.5	BSENISO 1866
22 hours @ 70°C(158°F)	%	18.0	14.5	14.0	12.0	12.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	ASTM D1056
22 hours @ 100°C(212°F)	%	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ASTM D1056
Water Absorption	%	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	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.

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.