

Cellular Silicone Elastomer Rolls

Grades

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

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 1810553.

Availability

Mouldings



Rolls



Gaskets



Cables



Extrusions



Compound



Tubing



Temperature Range

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

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

- Sheeting 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 D746
Limiting Oxygen Index	24.0 %	BS 2782 Part 1
Thermal Conductivity	$6.4 \times 10^{-2} \text{ W.m}^{-1} \cdot \text{K}^{-1}$	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.

Cellular Silicone Elastomer Sheeting

Mechanical Properties

Property	Units	kSil™GP200	kSil™GP250	kSil™GP350	kSil™GP400	kSil™GP450	kSil™GP530	Test Method
		Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	
*Density	kg.m ⁻³	200	250	320	400	460	550	BSENISO 845 ASTM D3574
	lb.ft ⁻³	12.5	15.6	20.0	25.0	28.7	34.3	
**Hardness	Shore OO	35	42	55	65	70	80	ASTM D2240
	Shore A	<5	5	15	17	24	30	
Compression Stress 40% strain	kPa	50	90	120	165	230	470	BSENISO 3386 part1, 2 ASTM D1056
Compression Stress 25% strain	psi	4.6	6.4	8.3	11.9	17.4	34.8	
Tensile Strength	MPa	0.6	0.6	0.75	0.75	1.5	2.0	BSENISO 1798 ASTM D412
	psi	87	87	108	108	217	290	
Elongation to Failure	%	140	145	120	120	130	130	BSENISO 1798 ASTM D412
Compression Set 50% compression - 24 hours recovery 22 hours @ 70°C(158°F)	%	15.0	12.0	12.0	10.0	10.0	9.5	BS EN ISO 1856
		18.0	14.5	14.0	12.0	12.5	12.0	
22 hours @ 100°C(212°F)	%	18.0	14.5	14.0	12.0	12.5	12.0	BS EN ISO 1856
Water Absorption	%	< 5	< 5	< 5	< 5	< 5	2	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.