



TECHNICAL DATA SHEET

SILICONE RUBBER SPONGE

**GRADES: SIL10, SIL16, SIL16FR,
SIL24, SIL33**

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PRODUCT FORM

Profile extrusions, sheeting, cord, joined rings, punched forms and self-adhesive backed.

APPLICATIONS

Cellular silicone rubber is suitable where a soft, easily deformed rubber is required, for example, for high temperature seals and gaskets. The sheets and punched parts are all available with self-adhesive backing to ease assembly.

THERMAL PROPERTIES

The range is suitable for continuous use at temperatures up to +200°C. It has even been found that at temperatures as high as +300°C useful lives of up to 10 hours can be achieved. They are also suitable for use at temperatures as low as -60°C.

CHEMICAL COMPOSITION

This range of polydimethylsiloxane have been "free-blown" with a chemical blowing agent and crosslinked with an organic peroxide. The cellular structure is produced without the use of CFC's thus making less damaging to the environment.

MOISTURE ABSORPTION

The range has a very low degree of moisture absorption. Mechanical properties shows little change even after long periods of immersion.

PIGMENTABILITY

The product range is available in off-white as standard. Other colours, such as red oxide, are available, we can colour match to most customer requirements.

ENVIRONMENTAL RESISTANCE

Silicone rubber has excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmic radiation, ionising radiation and weathering in general. Typical radiation resistance is greater than 10 grays (greater than 10 rads).

MECHANICAL PROPERTIES - SIL16 (Calendered Grade)

Property:	UNITS	SPEC.LIMITS	TYPICAL VALUE
*Apparent Density	Kg/m ³	250 +/- 40	256
**Hardness	Shore OO #ShoreA	40 ± 5 <5	42
***Compression Stress 40% strain	kPa	90 ± 40	90
***Compression Stress 25% strain	kPa	5 to 9	6.4
Tensile Strength	N.mm ²	0.5 min	0.6
Elongation at break	%	110 min	145
Compression Set 50% Compression 24 Hours Recovery 22 hrs @70°C	%	15 max	12
22 hrs @ 100°C	%	15 max	14.5

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

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

*** Compression set measured on 25mm thick sample. The compressive stress of the material increases with the density as the sample 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.

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This Product is REACH, RoHS, PAH and CE Compliant



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