

# Silicone Rubber Sheet

The following tables and specifications are meant as a guideline applicable to standard 'in-house' technical/external medical grades of silicone sheet to fda and wrc elastomer approvals, including ex stock technical grade silicone rubber sheet. (A high quality class 2 product) - non implant grade.

Ex stock material colours available: white, R.I.O., Translucent and black. Colour variations to bs or ral spec numbers to special order (chart available) min. 50M.

Polymer type: vmq

Electrical specifications to bs2848.

## Typical Physical Properties And Values

Hardness, Shore A $\pm 5^\circ$ Din 53505	60
Specific Gravity (Density) Din 53479	1.2
Tensile Strength, Mpa Din 53504	6.0
Tear Strength, N/Mm Min. Astm D 624 Form B	17.0
Elongation At Break, % Din 53504	400
Brittle Temperature $^\circ\text{C}$	$-73^\circ$
Max Operating Temperature Range (Constant) $^\circ\text{C}$	$-60^\circ/+250^\circ$
Rebound Resilience Din 53512	30%
Compression Set (70 Hr. @ $150^\circ\text{C}$ ) $\pm 10\%$ Din 53517	50%

## Electrical (Post-cured samples)

Volume Resistivity, Cm	$10^{15}$
Dielectric Strength, Kv/Mm (1Mm Thick Sample)	23
Dissipation Factor, Tan (50 Hz)	$40 \times 10^{-4}$
Dielectric Constant (50 Hz)	2.9

## Thermal

Thermal Conductivity, Watts/Km $0^\circ-90^\circ\text{C}$ (Kelv/M) $90^\circ-260^\circ\text{C}$	0.15 MAX 0.17
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## Calendered Sheet Thickness Tolerances Generally To BS3734 Class E2 (See Price List)

Nominal Above	Dimension Up To	(Values in mm) +/-
0.3	0.8	0.10
0.8	2.5	0.20
2.5	4.0	0.25
4.0	6.3	0.35
6.3	10.0	0.40

### Specific Design Tolerances

Closer tolerances are achievable to a specific design band down to  $\pm 0.1$  mm. To be agreed prior to manufacture.