

# Technical Grade Extruded Silicone Rubber

The following tables and specifications are meant as a guideline applicable to standard 'in-house' technical grades (general purpose) fda and wrc approved silicone elastomers, including ex stock technical grade silicone tubing, hygienic mandrel built hose, extruded reinforced hose etc.. Samco 'in-house' standard cure duration 8 hours at 180°C.

General Electrical Specifications To BS2848.

## Typical Physical Properties and Values

Hardness, Shore ±5	60
Specific Gravity	1.20
Tensile Strength, Mpa	7
Elongation at Break, %	500
Brittle Temperature °C	-73
Max Operating Temperature, °C (Temperature range can be extended for short duration)	-45°/+200°C
Compression Set (22 Hours At 177°C)	35%

## Electrical (Post-cured samples)

Volume Resistivity, cm	10 <sup>15</sup>
Dielectric Strength, KV/mm (1mm Thick Sample)	23
Dissipation Factor, Tan (50 Hz)	40 x 10 <sup>-4</sup>
Dielectric Constant (50 Hz)	2.9

## Thermal

Thermal Conductivity, Watts/Km 0°-90°C (Kelvin/M)	0.15
90°-260°C	Max 0.17

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Variations in colour to BS or RAL spec numbers available to special order (chart available).

## Standard Extrusion Tolerances To BS3734 Class E1

Nominal Above	Dimension Up To	(Values In mm) +/-
0.0	2.5	0.20
2.5	4.0	0.25
4.0	6.3	0.35
6.3	10.0	0.40
10.0	16.0	0.50
16.0	25.0	0.70
25.0	40.0	0.80

## Specific Design Tolerances

Closer tolerances are achievable to a specific design band down to  $\pm 0.1$ mm.