

Technical Grade Extruded Cord

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 Cord.

Ex Stock Material Colour: White. Variations in colour to BS or RAL spec numbers available to special order (chart available).

General Electrical Specifications To BS2848.

Typical Physical Properties and Values

Hardness, Shore ± 5	60
Specific Gravity	1.14
Tensile Strength, Mpa	10.0
Tear Strength, Kn/M	20.0
Elongation at Break, %	375
Brittle Temperature $^{\circ}\text{C}$	-73
Max Operating Temperature, $^{\circ}\text{C}$ (Temperature range can be extended for short duration)	-45 $^{\circ}$ /+200 $^{\circ}\text{C}$
Burst Operating Temperature, $^{\circ}\text{C}$	250 $^{\circ}$
Compression Set (22 Hours At 177 $^{\circ}\text{C}$)	29%

Electrical (Post-cured samples)

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

Thermal

Thermal Conductivity, Watts/Km 0 $^{\circ}$ -90 $^{\circ}\text{C}$ (Kelvin/M)	0.15
90 $^{\circ}$ -260 $^{\circ}\text{C}$	Max 0.17

Cord Extruded Tolerances

Nominal Above	Dimension Up To	(Values In mm) +/-
0.0	6.3	0.13
6.3	12.7	0.20
12.7	16.0	0.30

Specific Design Tolerances

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