



TECHNICAL DATA SHEET

Solid Silicone Rubber for Extrusions and Mouldings

Grades: ESTSIL40 - 50 - 60 - 70 & 80

Temperature Range: -60°C to 230°C and up to 250°C intermittent

AVAILABILITY

The ESTSIL range of Silicone Rubbers is available in the form of mouldings and profile extrusions, which can be jointed or self-adhesive backed. They are particularly suited to use in oven door seals and gaskets, and are suitable for use in the food and beverage industry. There is a full range of standard colours available, including transparent.

SPECIFICATIONS

Translucent, White, Blue and Red Iron Oxide variants contain only ingredients that are listed by the American Food and Drugs Administration (FDA) under the 21 CFR number 177-2600.

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 tests.

GENERAL CHARACTERISTICS FOR SILICONE RUBBER

Brittle Point	-80°C (-112 °F)	ASTM D746
Limiting Oxygen Index	24.0 %	BS 2872 Part 1
Thermal Conductivity	0.24 W.m ⁻¹ .K ⁻¹	VDE 0304
Radiation Resistance	>10 ⁵ Grays (10 ⁷ Rads) typical	
Dielectric Strength	23 kV.mm ⁻¹	VDE 0303
Dielectric Constant	2.9	VDE 0303
Dissipation Factor @ 50c/s	3x10 ⁻⁴	VDE 0303
Volume Resistivity	3x10 ¹⁵ Ω.cm	VDE 0303

ENVIRONMENTAL RESISTANCE

Silicone rubber products have an excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmic radiation, ionising radiation and weathering in general.



MECHANICAL PROPERTIES

Property	Units	40		50		60		70		80		Test Method
		Specification Limits	Typical Value	Specification Limits	Typical Value	Specification Limits	Typical Value	Specification Limits	Typical Value	Specification Limits	Typical Value	
Hardness	Shore A	40 ±5	40	50 ±5	54	60 ±5	60	70 ±5	70	80 ±5	80	ASTM D2240 DIN 53505
Tensile Strength	MPa	6.0 min.	7.0	6.5 min.	8.0	7.0 min.	7.9	7.0 min.	7.6	5.5 min.	7.8	BSISO 37 DIN 53504 die S1
	Psi	870 min.	1015	942 min.	1160	1015 min.	1146	1015 min.	1150	798 min.	1131	ASTM D412 die C
Elongation to Failure	%	300 min.	450	280 min.	370	280 min.	340	200 min.	300	200 min.	300	BSISO 37 DIN 53504 die S1 ASTM D412 die C
Tear Strength	N/mm	8.5 min.	10.2	10.0 min.	12.8	12.5 min.	14.2	12.5 min.	14.4	10.0 min.	13.2	BSISO 34-1 method C
	lb/in	48.5 min.	58.3	57.0 min.	81.1	71.4 min.	90.3	71.4 min.	91.4	57.1 min.	83.2	ASTM D624 die C
Compression Set 24 hours @ 150°C	%	35 max.	25	30 max.	15	30 max.	13	30 max.	9	30 max.	19	BS 903 pt A6 type B DIN 53517 type II
		35 max.	22	30 max.	16	30 max.	10	30 max.	10	30 max.	19	ASTM D395 method B type 2
22 hours @ 300°F												

*Other information regarding the physical properties of these materials is available on request
In-house capabilities for extensive industry specific testing available on request