

GENERAL PURPOSE SILICONE RUBBER SHEET

Temperature Range: -60°C to +230°C

Product Form

Continuous solid sheeting

Applications

The general purpose range was specifically designed as a calandered grade for producing continuous solid sheeting. This is primarily used for belting and gaskets.

Flammability Characteristics

The products have a Limited Oxygen Index (LOI) of 24% (BS 2872 part i) and comply with the following flammability specification:

* FAR 25.853 (a)(1)(iv) and (a)(1)(v) horizontal flame tests.

* CAA specifications 8 issue 2 (2.2)(c) and (d) horizontal flammability tests.

Thermal Properties

Property	Typical Values	Test Method
Thermal conductivity	0.86 Kjm ⁻¹ hr ⁻¹ K ⁻¹ (0.24 Wm ⁻¹ K ⁻¹)	VDE 0304
Brittle Point	-80	ASTM D 746

Environmental Resistance

The product have excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmetic radiation, radiation and weathering in general.

Typical radiation resistance is greater than 10⁵ grays (greater than 10⁷ rads)

Pigmentability

The products are available in a full range of standard colours, including translucent, and can be colour matched to customer requirements.

Electrical Properties

	Typical Figures	Test Method
Dielectric strength (KV/mm)	23	VDE 0303
Dielectric constant	2.9	VDE 0303
Dissipation factor @ 50 liz (tan delta)	3 x 10 E-4	VDE 0303
Volume resistivity (Ohm.cm)	3 x 10 E15	VDE 0303
Power factor	1.8 x 10-3	ASTM D 150

Chemical Composition

This range of polydimethylsiloxane have been cross-linked with an organic peroxide. They contain a high performance heat stability additive, small quantities of ground quartz filler and a pigment, if required. These products can all be processed to remove 99% of the volatiles.

Property	GP 40°		GP 50°		GP 60°		GP 70°		Test Method
	Specification Limits	Typical Value	Specification Limits	Typical Value	Specification Limits	Typical Value	Specification Limits	Typical Value	
Shore A	40° ± 5°	42	50° ± 5°	50	60° ± 5°	60	70° ± 5°	70	BS 906 Part A26
Tensile Strength (MPa)	4.0 Min	6.5	5.5 Min	8	5.5 Min	9	5.5 Min	8	BS 903 Part A2
Tear Strength (N/mm)	8 Min	15	10.0 Min	11.5	12.5 Min	13	12.5 Min	12	BS 903 Part A3 Cutter Type C
Elongation at break	300 % Min	440 %	250 %	380 %	250 % Min	320 %	200 % Min	305 %	BS 903 Part 2
Compression Set	35 % Max	30 %	30% Max	28 %	30 % Max	26 %	30 % Max	20 %	BS 903 Part A6