



**AK Rubber & Industrial Supplies Ltd**

SHEETING • MATTING • GASKETS • STRIP • MOULDINGS  
EXTRUSIONS • INDUSTRIAL HOSES • FITTINGS • CLIPS • SEALANTS



18 Twyford Business Centre • London Road • Bishop's Stortford • Herts • CM23 3YT  
email: sales@akrubber.co.uk Tel: 01279 719000 Fax: 01279 719001

## **GENERAL PURPOSE SILICONE RUBBER – PRODUCT DATA**

**Temperature Range: -60°C to +230°C**

### **Applications**

The general purpose range was specifically designed as a calendared 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**

<b>Property</b>	<b>Typical Values</b>	<b>Test Method</b>
<b>Thermal conductivity</b>	$\text{Kjm}^{-1}\text{hr}^{-1}\text{K}^{-1}$ ( $0.24 \text{ Wm}^{-1}\text{K}^{-1}$ )	VDE 0304
<b>Brittle Point</b>	-80	ASTM D 746

### **Environmental Resistance**

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

Typical radiation resistance is greater than  $10^5$  grays (greater than  $10^7$  rads)

### **Pigmentability**

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



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### 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.

### FDA Approval

All the ingredients that make up this solid silicone sheet are in accordance with FDA regulations and the post cure is performed in conjunction with raw material manufacturer's recommendations in accordance to maintain the FDA status.



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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 %	20 %	BS 903 Part A6