

Overview and General Properties

WesternPolyrb is our range of expanded silicone sponge that has a closed cell structure with a smooth outer wall.

It covers excellent thermal stability to withstand the extremes of temperature from -50 C up to 250°C, resistance to UV and Ozone and also an excellent compression set of 15% typical.

This makes the product particularly suited to demanding temperature applications that require a soft compressible material and is commonly used in environmental shields, electrical and automotive gaskets and across a variety of markets.

Density

Our Silicone Sponge is available in four standard densities; P10 soft, P16 medium, P24 firm to P33 extra firm. As part of our Premium Service we can additionally offer tailored grades and densities on request.

Sizes

We can provide sheets in 1000 x 600mm in thicknesses from 1.6mm to 40mm. We also provide 1000 x 1000mm sheets and 1400 x 600mm sheets in thicknesses from 10mm to 25mm.

We have an enviable level of experience that you can rely on to provide tailored densities.

Options

We can also provide self-adhesive backing and fabric finishes to our products.

Our sheet product can be cut into gaskets on site in practically any shape required.

For more detailed information please refer to our [Summary Sheet](#)



Why not find out more about our specialist grades:

Firesafe

Flame resistant to UL94 V-0

High Temp

Improved operating temperature up to 280°C



EXCELLENT MOISTURE RESISTANCE



-50°C up to +250°C.
EXCELLENT TEMPERATURE RESISTANCE



RESISTANCE TO UV/ OXIDATION

General Characteristics

Properties	P10 (soft)	P16 (medium)	P24 (firm)	P33 (extra firm)	Test
Density (Imperial)	10 lbs/ft ³ (+/- 4)	16 lbs/ft ³ (+/- 4)	24 lbs/ft ³ (+/- 4)	33 lbs/ft ³ (+/- 4)	BS EN ISO 845
Density (Metric Kg/m ³)	160Kg/m ³ (+/- 65)	255Kg/m ³ (+/- 65)	390Kg/m ³ (+/- 65)	530Kg/m ³ (+/-65)	BS EN ISO 845
Density (Metric g/cm ³) * ¹	0.16g/cm ³ (+/-0.06)	0.25g/cm ³ (+/-0.06)	0.39g/cm ³ (+/-0.06)	0.53g/cm ³ (+/-0.06)	BS EN ISO 845
Hardness * ² Shore A	10	20	26	35	ASTM D2240
Elongation at break (%) 10mm thick	200	215	225	245	BS ISO 37
Compression set (%) * ¹ 50 % compression for 22 hours at 70oC 10mm thick sample	15	15	15	10	EN ISO 1856
Compression Deflection (25%) typical kPa	25	50	75	100	
Tensile strength (mpa) 10mm thick	0.5	0.65	1.05	1.60	BS ISO 37
Tensile strength (newton's) 10mm thick sample	50	65	110	160	BS 4443
Temperature Max (°C) Continuous	200	200	200	225	
Intermittent	200	200	225	250	
Temperature (Min) °C	-50	-50	-50	-50	
Toxicity NES 713	14	14	14	14	NES 713 Issue 03
Smoke Index	46	46	46	46	NES 711 Issue 02
Burn rate	0.03mm/s	0.03mm/s	0.03mm/s	0.03mm/s	BS 4735:1974
Thermal Conductivity (W/m.K)	0.0695 W/m.k	0.0695 W/m.k	0.0695 W/m.k	0.0695 W/m.k	

*¹ Compression set and density may vary depending upon product size and thickness

*² Shore A data is provided as an approximate indication based on a 10mm sheet

Tolerances

Thickness (mm)	Tolerance ISO 3302-1: 1996 (mm) ST3 Good Quality
1.6mm – 2.5mm thick	+/- 0.4mm
>2.5–4.0	+/- 0.5
>4.0 - 6.3	+/- 0.7
>6.3 - 10.0	+/- 0.8
>10.0 - 16.0	+/- 1.0
>19.0 - 25.0	+/- 1.75
>25.0 – 40.0	+/- 2.25

Please note our information is based on lab tested samples. Technical data is provided in good faith but without warranty.

End users should check to ensure our products are suitable for their intended use.

