

PRODUCT DATA

AlphaSil

TECHNICAL BULLETIN

ESD - SILICONE RUBBER SHEET

Demand for Solid Silicone sheeting continues to grow and is available in standard colours of black – sizes ranging from 0.5mm thick to 12mm thick and width available are 1m, 1.2m, 1.5m and even up to 2m in roll form.

Alphasil Silicone Rubber Sheet (ESD type) specially blended for electronic industry where the static charge is concerned. The static charge build up can be dissipated through the ESD sheet itself, so that the static charge on the surface is low enough

Flexible, resilient silicone rubber has a unique chemical structure which gives it a high temperature stability and general inertness unavailable in any other elastomer.

Unique Silicone Properties

- ESD grade
- Chemically inert
- Superior ablative properties
- Compression set resistance
- Low out gassing
- Release ability
- Flame retardance
- Food grade
- Excellent thermal properties
- Consistent electrical properties
- Excellent weatherability
- Non-toxic

TEST	TEST METHOD	TYPICAL VALUES	UNIT
Density	DIN 53479 A	1.2	g/cm ³
Hardness	DIN 53505	60	Shore A
Tensile Strength	DIN 53504 (S1)	12	N/mm ²
Elongation to break	DIN 53504 (S1)	600	%
Tear Strength	DIN 53515 (C1)	18	N/mm
Compression Set	DIN 53517	11	%
Temperature Range	-60°C to +200°C (Continuous) +260°C (Intermittent)		
Dissipation Factor	VDE 0303	70x10 ⁻⁴	Tan δ
Dielectric Strength	VDE 0303	19	kV/mm
Dielectric Constant	DIN 53482 @ 25°C and 50Hz	3	N/A
Arc Resistance	VDE 0441	90	seconds
Surface Resistance	VDE 0303	5x10 ⁸	Ω.cm
Abrasion Resistance	DIN 53516	76	mm ³
Thermal Conductivity	DIN 52612	0.25	W·m ⁻¹ ·K ⁻¹
Coefficient of Expansion	DIN 52612	3x10 ⁻⁴	K ⁻¹
Weathering	DIN 50018 – SFW 2.0 S	Without changes	15 cycles
Flame Retardancy	UL 94 V 1	pass	
Oil Resistance	Hardness Change	-2	%
ASTM Oil 1	Tensile Strength Elongation Change Volume Change	-10 +5 +3.8	% % %