

PRODUCT DATA

AlphaSil

TECHNICAL BULLETIN

RED SILICONE RUBBER SHEET

Demand for Solid Silicone sheeting continues to grow and is available in red color, other color and hardness can be custom made - 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.

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

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

TEST	TEST METHOD	TYPICAL VALUES	UNIT
Density	DIN 53479 A	1.19	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 +240°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 ¹²	Ω.cm
Volume Resistivity	VDE 0303	5x10 ¹⁵	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	% % %

IN CONTACT WITH FOOD, AlphaSil also have the following approval from some of countries listed below:-

FEDERAL REPUBLIC OF GERMANY

- By VVXV 'Silicones' 182nd notice of official [Federal Gazette 30,211 (1989)] - Positive List
- German KTW recommendation (drinking water), official Federal Gazette 28, No. 12(1985) - Contact with potable water.

USA

- "Rubber Articles Intended for Repeated use in contact with food" FDA code of Federal Regulation, 177.2600.

UNITED KINGDOM

- BS 6920 (WRC Water Byelaws Scheme.)

FRANCE

- Decrets et Circulaires du Ministere de l' Agriculture Brochure No. 1227,1980.