

PRODUCT DATA

AlphaSil

TECHNICAL BULLETIN

SILICONE RUBBER PROFILE

Silicone rubber profiles are specially make extruded silicone rubber to suit specific design of seal according to customer requirement. The colour, hardness, grade are selected for specific requirement.

AlphaSil remains the primary choice for extruded profiles because of its accuracy and consistency of section.

The specification below is the common grade for general reference.

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 +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 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	-10	%
	Elongation Change	+5	%
	Volume Change	+3.8	%