

Our Black Silicone Rubber Sheet is a premium quality elastomer that combines outstanding chemical resistance with excellent electrical insulation properties and sealing performance. It can be used in areas where it will have direct contact with food (as per FDA and EU standards) and for sealing potable (drinking) water (as per WRAS).

In addition to being able to be used in many highly regulated, critical areas; our Silicone Rubber Sheet offers a range of excellent performance characteristics. It will withstand ongoing exposure to temperatures between -60°C and +230°C as well as short-term spikes to 250°C.

Silicone Rubber Sheet has very low thermal conductivity and makes a good thermal insulation barrier. It will also seal with small amounts of compression and maintain this seal for an extended period. It has excellent UV, ozone and weathering resistance in addition to the aforementioned ability to resist aging.

Applications

- High temperature gaskets and seals for heating equipment.
- Automotive gaskets and sealing strips.
- For making insulating (thermal and electric) gaskets and seals for lighting fixtures.
- Sealing strips used in construction.
- Sealing air conditioning units and compressors.
- Making seals for catering equipment.
- Sealing water tanks, piping and beverage distribution equipment.
- For making sealing strips and wear protection strips for use in catering and food preparation areas.
- For making all kinds of gaskets, sealing strips, wear pads, insulation pads and components for the food and beverage, marine, automotive, air conditioning, construction, agricultural, rail, pharmaceutical, electrical, lighting, power generation and aerospace sectors.

Approvals and Certifications

- Approved for Potable Water at Temperatures up to 85°C: WRAS
- Suitable for Direct Food Contact in accordance with European Food Contact Legislation: EC 1935/2004
- Suitable for Direct Food Contact in accordance with FDA Standards: FDA Standard 21 CFR 177.2600
- Passes Colour Bleed Test: BFR XV and Part B 11
- Passes Flammability Test: PART 571MVSS302
- Fully Compliant with RoHS and REACH requirements
- Passes Horizontal Flammability Tests: FAR 25/JAR 25/CS 25 Appendix F, Part 1, (a) (1) (iv) and (a) (1) (v).

Important

The values listed here and the information presented should not be treated as a substitute for specific technical advice. We cannot warrant the products performance or suitability for particular applications.

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Technical Details

Property	Typical Value	Test Standard(s)
Colour	Black	---
Hardness (Durometer)	60	ASTM D2240 DIN ISO 7619-1
Temperature Range	-60 to +230°C	---
Short-Term Temperature	+250°C	---
Brittle Point	-60°C	ASTM D476
Elongation at Break	400%	ASTM D412 Die C ISO 37 Type 1 DIN 53504 Type S1
Tear Strength	22 N / mm	ASTM D624 Die B
Tensile Strength	10 Mpa	ISO 37 Type 1
Compression Set 24 Hours @ 150°C	13%	DIN/ISO 815 Type B BS 903 Pt A6 Type B
Compression Set 22 Hours @ 300°C	10%	ASTM D395 Method B Type 2
Limiting Oxygen Index	24%	BS 2782 Part 1
Thermal Conductivity	0.24 W.m ⁻¹ .K ⁻¹	VDE 0304
Dielectric Strength	23 kV/mm ⁻¹	VDE 0303
Dielectric Constant	2.9	VDE 0303
Dissipation Factor	3x10 ⁻⁴	VDE 0303
Volume Resistivity	3x10 ¹⁵ Ω.cm	VDE 0303
Radiation Resistance (Typical)	>10 ⁵ Grays (10 ⁷ Rads)	---
Minimum Shelf Life	10 Years	ISO 2230:2002 Group C, Table 4

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