

**Data Sheet Version:** v8

**Grade:** Soft-Medium - 300kg/m<sup>3</sup>

**Availability:**

- Grey (standard) & Black
- Sheets and Rolls
- Pressure Sensitive Adhesive (PSA) Backing
- Punched / Water Jet Gaskets
- Cords, Tubes, Profiles, Joined Rings & Sections

**Temperature Ranges:**

- -60°C (-76°F) to 230°C (446°F) and up to 250°C (482°F) intermittent

**Specifications:**

- CBF Sil V0 is a closed cell, lightweight silicone sponge/foam
- CBF Sil V0 meets UL94 V-0 at 1.5mm and above
- EN45545-2 compliant (HL3)
- NFPA 130 compliant
- Low water absorption and dust ingress, capable of meeting IP67
- Product meets the flammability requirements of FAR 25/JAR 25/CS 25 Appendix F, Part 1, (a)(1)(i) and (a)(1)(ii) vertical, (a)(1)(iv) and (a)(1)(v) horizontal, (a)(2)(ii) and (a)(2)(iii) 45 degrees flammability tests and automotive standard PART 571FMVSS302.
- Additional Approval: CBF Sil V0 Soft-Medium meets ASTM D1056 2D2

**Environment Resistance:**

- Silicone products have excellent resistance to ozone, oxidation, ultraviolet light, corona discharge, cosmic radiation, ionising radiation, and weathering in general

**Typical Applications:**

- Automotive, Aerospace, Electronics, Heating and Ventilation (HVAC), Lighting, Marine & Rail

**General Characteristics:**

Test	Result	Standard
Brittle Point	-80°C (-112 °F)	ASTM D746
Limiting Oxygen Index	33.5 – 43.9 %	EN ISO 4589-2
Radiation Resistance	>10 <sup>5</sup> Grays (10 <sup>7</sup> Rads) typical	

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### Mechanical Properties:

Property	Units	CBF Sil V-0 Soft-Medium	Test Method
*Density	Kg/m <sup>3</sup> lb.ft <sup>-3</sup>	300 19.4	BSENISO 845 ASTM D3574
**Compression Stress 25% strain	kPa psi	40 5.8	ASTM D1056
**Compression Stress 40% strain	kPa psi	90 13.1	BSENISO 3386 part 1, 2
Tensile Strength	kPa psi	304 44.1	BSENISO 1798 ASTM D412
Elongation at failure	%	90	BSENISO 1798 ASTM D412
Compression Set 50% compression 24 hours recovery. 22 hours @ 70 °C (158°F)	%	<1	BSENISO 1856
22 hours @ 100°C (212 °F)	%	3	ASTM D1056
Thermal conductivity	W/m.K	0.099	DIN EN993-15

### Additional information

- (\*) Density measured on 25mm diameter cord samples. The density of samples of different sizes will be different from that stated here
- (\*\*) Compression stress measured on samples defined in BSENISO 3386
- The compressive stress on samples of different dimensions, especially thickness may vary from that quoted here

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### Flame Resistance:

Property	Units	CBF Sil V-0 Soft-Medium	Test Method
UL94 Vertical Burn	Minimum Thickness (mm)	V-0 @ 1.5	UL94
FAR 25 app. F sec A 1 (i) & (ii)	Minimum Thickness (mm)	1.5	FAR 25 App. F sec A 1 (i)
Limiting Oxygen Index	%	43.9	EN ISO 4589-2: OI
Flame spread (CFE)	kW/m <sup>2</sup>	2mm = 26.57 25mm = 20.87	ISO 5658-2
Smoke/Toxicity 50 kWm <sup>-2</sup>	D <sub>s</sub> (4)	2mm = 55 25mm = 57	EN ISO 5659-2
	VOF <sub>4</sub> min	2mm = 159 25mm = 154	
	CIT <sub>g</sub>	2mm = 0.03 25mm = 0.04	
Cone Calorimeter 50 kWm <sup>-2</sup>	MARHE kWm <sup>2</sup>	2mm = 76.67 25mm = 68.14	ISO 5660-1
Smoke Density 25 kWm <sup>-2</sup>	D <sub>s</sub> Max	2mm = 18 25mm = 31	EN ISO 5659-2
Toxicity 600°C	CIT <sub>NLP</sub>	2mm = 0.02 25mm = 0.05	NF X 70-100-1 & 2

### Flame Resistance to NFPA 130:

Property	Units	CBF Sil V-0 Soft-Medium	Test Method
Average Flame Propagation	Inches	1.6	ASTM C1166
Surface Flammability	Is (flame spread index)	3mm = 15 30mm = 25	ASTM E 162
Smoke Generation (Flaming Mode)	D <sub>s</sub> (1.5)	3mm = 8 30mm = 11	ASTM E 662
	D <sub>s</sub> (4.0)	3mm = 14 30mm = 30	
Smoke Generation (Non-Flaming Mode)	D <sub>s</sub> (1.5)	3mm = 5 30mm = 10	ASTM E 662
	D <sub>s</sub> (4.0)	3mm = 13 30mm = 29	
Toxic Gas Generation	N/A	3mm = PASS 30mm = PASS	Bombardier SMP 800-C

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### EN 45545-2 Classification:

Property	Description	Thickness Range (mm)	CBF Sil V-0 Soft-Medium
R1	Interior surfaces (non-listed interior products >0.2m <sup>2</sup> )	2 – 25	HL2
R2	Limited surfaces	2 – 25	HL3
R3	Strips	2 – 25	HL3
R7	Gangway surfaces, ducting (& non-listed exterior products >0.2m <sup>2</sup> )	2 – 25	HL2
R8	Roof (external)	2 – 25	HL2
R10	Floors and cavity walls	3 – 50	-
R17	Cab housing	2 - 25	HL2
R21	Seating & mattress materials	3 – 50	-
R22	Interior seals (& non-listed interior products <0.2m <sup>2</sup> )	2 – 25	HL3
R23	Exterior seals (& non-listed exterior products <0.2m <sup>2</sup> )	2 – 25	HL3

The information given above is based upon average values and is no way intended as a warranty. The purchaser is deemed responsible for determining the suitability of the product for any particular application. All data relating to suitable uses and descriptions information concerning our products are compiled from research and are believed to be reliable but are provided for guidance purposes only. The company holds no legal or contractual responsibility for information supplied.

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