

Silicone Fiberglass Sleeving — Grade SGS

Technical datasheet · WCW (Shenzhen Wahchangwei Industrial Co., Ltd.)

Construction: braided from alkali-free (E) fiberglass yarn, then coated with silicone resin through a specialized bonding process. Available in all standard sizes, colors and voltage classes; custom constructions such as an added outer PET or fiberglass braid on request.

1 · Ratings & UL Recognition

MODEL / UL FILE NO.	TEST STD.	FLAME	TEMP. RATING	DIELECTRIC CLASS	AVG. WITHSTAND	MIN. INDIVIDUAL
SGS-15 · E233804	UL 1441	UL VW-1	−10 °C to +200 °C	D	1500 V	1000 V
SGS-25 · E233804	UL 1441	UL VW-1	−10 °C to +200 °C	C	2500 V	1800 V
SGS-40 · E233804	UL 1441	UL VW-1	−10 °C to +200 °C	B	4000 V	2500 V
SGS-70 · E233803	UL 1441	UL VW-1	−10 °C to +200 °C	A	7000 V	5000 V

Dielectric values measured per UL 1441. Class letter per UL 1441 dielectric-withstand classification; “Min. Individual” is the minimum acceptable single-tube reading.

2 · Dimensions

INNER DIAMETER		WALL THICKNESS		
NOMINAL	TOLERANCE	7000 V (CLASS A)	4000 V (CLASS B)	CLASS C & D
0.5 – 2.0 mm	+0.20 / −0.00 mm	0.45 ± 0.05 mm	0.40 ± 0.05 mm	0.35 ± 0.05 mm
2.5 – 3.0 mm	+0.25 / −0.00 mm	0.50 ± 0.05 mm	0.40 ± 0.05 mm	0.35 ± 0.05 mm

3.5 – 5.0 mm	+0.35 / –0.00 mm	0.55 ± 0.05 mm	0.50 ± 0.05 mm	0.42 ± 0.05 mm
6.0 – 9.0 mm	+0.50 / –0.00 mm	0.60 ± 0.05 mm	0.55 ± 0.05 mm	0.45 ± 0.05 mm
10.0 – 12.0 mm	+0.70 / –0.00 mm	0.65 ± 0.05 mm	0.55 ± 0.05 mm	0.53 ± 0.05 mm
13.0 – 20.0 mm	+0.80 / –0.00 mm	0.70 ± 0.05 mm	0.60 ± 0.05 mm	0.56 ± 0.05 mm
22.0 – 35.0 mm	+0.90 / –0.00 mm	1.05 ± 0.05 mm	1.00 ± 0.05 mm	0.70 ± 0.05 mm

Standard color: white; other colors available on request. Custom cut lengths and custom constructions quoted on request.

3 · Typical Applications

Motors and generators (lead insulation), transformers and coils, automotive harness and EV battery packs, home appliances, specialty lighting, electronic instruments — wherever a flexible, flame-rated, Class-200 dielectric sleeve is required.

4 · Compliance & Documents

UL recognition	UL 1441 — File No. E233804 (SGS-15/25/40), E233803 (SGS-70)
Flame rating	UL VW-1
Quality system	ISO 9001:2015 · IATF 16949:2016 · ISO 14001:2015 · ISO 45001:2018
On request	RoHS, REACH SVHC, halogen-free statements; certificate copies for supplier qualification and PPAP

WCW · Shenzhen Wahchangwei Industrial Co., Ltd. — source manufacturer since 2002. UL / CUL certified since 2003, IATF 16949:2016, exporting to 60+ countries.

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Data believed accurate as of the revision date; confirm critical values against the current UL file and your own qualification testing.