WAHCHANGWEI

**DS-GSG3-2026-01**

Rev. 2026-10

UL 1441 construction — VW-1 flame rating

# Silicone Rubber Fiberglass Sleeving — Grade GSG3

## Inside Rubber / Outside Fiber

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

**Construction (inside rubber / outside fiber):** extruded silicone rubber tube, over-braided with alkali-free (E) fiberglass yarn and finished with silicone resin. The soft rubber inner wall fits closely over irregular shapes; the outer fiberglass braid adds abrasion and mechanical protection. Available in all standard sizes, colors and voltage classes; custom constructions on request.

## 1 · Ratings & UL Recognition

| MODEL / UL FILE NO. | TEST STD. | FLAME | TEMP. RATING | AVG. WITHSTAND | MIN. INDIVIDUAL |
|---|---|---|---|---|---|
| **GS** | UL 1441 · E233804 | UL VW-1 | −60 °C to +200 °C | 7000 V | 6000 V |

Dielectric values measured per UL 1441. “Min. Individual” is the minimum acceptable single-tube reading.

## 2 · Performance Parameters

| TEST ITEM | REQUIREMENT / RESULT |
|---|---|
| **Continuous service temperature range** | −60 °C to +200 °C |
| **Heat resistance** | 265 °C ± 2 °C × 168 h — retains more than 1/2 of the original voltage value |
| **Thermal aging** | 260 °C × 6 h — no cracking |
| **Cold bending** | No cracking |
| **Horizontal burning** | < 30 seconds |
| **Flame rating (UL VW-1 burning time)** | < 30 seconds |
| **Hydrolysis stability** | No stickiness, no deformation, no softening |

## 3 · Dimensions

| INNER DIAMETER | | WALL THICKNESS |
|---|---|---|
| NOMINAL | TOLERANCE | 7000 V |
| **1.0 – 2.5 mm** | +0.20 / −0.00 mm | 0.60 ± 0.05 mm |
| **3.0 – 5.0 mm** | +0.30 / −0.00 mm | 0.70 ± 0.05 mm |
| **6.0 – 7.0 mm** | +0.35 / −0.00 mm | 0.75 ± 0.05 mm |
| **8.0 – 9.0 mm** | +0.40 / −0.00 mm | 0.80 ± 0.05 mm |
| **10.0 – 12.0 mm** | +0.50 / −0.00 mm | 0.90 ± 0.05 mm |
| **13.0 – 25.0 mm** | +0.65 / −0.00 mm | 1.30 ± 0.05 mm |

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

## 4 · Typical Applications

Appliance thermostats and heating elements, welding robots and high-temperature automation, high-voltage harnesses, transformer and coil lead insulation, marine and specialty lighting — wherever the lead must be protected mechanically as well as electrically. The braided outer surface resists abrasion in moving or bundled wiring.

## 5 · Compliance & Documents

| | |
|---|---|
| **UL recognition** | UL 1441 — File No. E233804 (Model GS-WCW-70). The inside-rubber / outside-fiber grade is listed as GS-WCW-70 in the Flame Retardant Sleeving category of File E233804. Additional type-test data available on request. |
| **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.