



High-temperature wire

UL AWM 3257

High-Voltage Silicone Ignition Wire

UL 758 Style 3257 +250 °C high-temperature silicone ignition wire with Ni-Cu conductor



UL AWM Style 3257

+250 °C Silicone

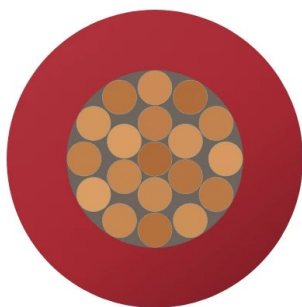
2500 V DC / 15 kV Pulse

Application

UL AWM Style 3257 high-temperature silicone ignition and lead wire engineered with nickel-plated or silver-plated copper conductors and a +250 °C thermal-grade phenyl/vinyl silicone rubber wall (≥ 1.14 mm) for 2500 V DC continuous and 15–25 kV pulse ignition.

Typical uses: Self-Cleaning & Pyrolysis Ovens, High-Temp Gas Burner Igniters, Semiconductor Diffusion Heaters, Industrial Drying & Curing, High-Voltage Power Modules

Construction



Cross-section, not to scale

- 1 Nickel-plated copper conductor
- 2 Conductor barrier interface
- 3 +250 °C silicone rubber wall
- 4 Corona-resistant outer skin

Technical data

Typical values

UL rated voltage	2500 V DC continuous	High-voltage ignition pulse	Up to 15 kV – 25 kV peak spark pulse
Dielectric withstand test	6000 V AC rms (dielectric) · 15 kV spark	Volume resistivity	$\geq 10^{14} \Omega\text{-cm}$ at +20 °C
UL continuous temperature	-60 °C to +250 °C	Short-term thermal peak	+280 °C intermittent excursion
Low-temperature flexibility	-60 °C cold-bend compliant	Conductor gauge range	24 AWG to 10 AWG (0.20 to 5.26 mm ²)
Minimum insulation thickness	45 mil (1.14 mm) per UL 758 Style 3257	Min. bending radius	5 × overall wire diameter (fixed)
Flame test	UL Horizontal & UL VW-1 flame retardant	Ozone & corona resistance	Resists ozone, corona, and moisture
Halogen-free compound	Zero halogens per IEC 60754-1/2	Standards	UL 758 AWM Style 3257

Sizes

8 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard UL AWM 3257 configurations 8 sizes							
☐ UL 3257 24 AWG	24 AWG (0.20 mm ²)	7×0.20 mm Ni-Cu	1.14	2.90	2.0	11.0	17
☐ UL 3257 22 AWG	22 AWG (0.35 mm ²)	7×0.25 mm Ni-Cu	1.14	3.10	3.4	13.0	19
☐ UL 3257 20 AWG	20 AWG (0.52 mm ²)	19×0.19 mm Ni-Cu	1.14	3.30	5.2	16.0	20
☐ UL 3257 18 AWG	18 AWG (0.82 mm ²)	19×0.235 mm Ni-Cu	1.14	3.60	8.2	20.0	22
☐ UL 3257 16 AWG	16 AWG (1.31 mm ²)	19×0.30 mm Ni-Cu	1.14	3.90	13.0	26.0	23
☐ UL 3257 14 AWG	14 AWG (2.08 mm ²)	19×0.37 mm Ni-Cu	1.14	4.30	20.5	35.0	26
☐ UL 3257 12 AWG	12 AWG (3.31 mm ²)	19×0.47 mm Ni-Cu	1.14	4.80	32.5	49.0	29
☐ UL 3257 10 AWG	10 AWG (5.26 mm ²)	37×0.43 mm Ni-Cu	1.14	5.40	51.5	71.0	32

– Outer diameters and weights are nominal engineering values for UL AWM 3257 subject to standard manufacturing tolerances per UL 758 AWM Style 3257.

Electrical & rating data

8 sizes

Configuration	Max. DCR @ 20 °C Ω/km	Primary rating (A or kV)	Derated / AC rating	Dielectric test V AC rms
UL 3257 24 AWG (24 AWG (0.20 mm ²))	88.00	10.0	4.0	15,000
UL 3257 22 AWG (22 AWG (0.35 mm ²))	54.00	10.0	4.0	15,000
UL 3257 20 AWG (20 AWG (0.52 mm ²))	34.60	12.0	5.0	15,000
UL 3257 18 AWG (18 AWG (0.82 mm ²))	21.80	15.0	7.0	15,000
UL 3257 16 AWG (16 AWG (1.31 mm ²))	13.70	15.0	7.0	15,000
UL 3257 14 AWG (14 AWG (2.08 mm ²))	8.60	15.0	7.0	15,000
UL 3257 12 AWG (12 AWG (3.31 mm ²))	5.40	15.0	7.0	15,000
UL 3257 10 AWG (10 AWG (5.26 mm ²))	3.40	15.0	7.0	15,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per UL 758 AWM Style 3257.

Standards and approvals

- ✓ UL 758 AWM Style 3257
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC & Halogen/Asbestos Compliance Verified

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/ul-3257-high-voltage-silicone-ignition-wire



Typical values for this cable type, based on UL 758 AWM Style 3257. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.