



SAE J1128 North American Automotive Primary Wires

TXL

Automotive Cross-Linked Wire

60 V DC / 25 V AC SAE J1128 thin-wall cross-linked polyethylene (XLPE) wire (-40 to +125 °



60 V DC / 25 V AC

SAE J1128 Thin-Wall XLPE

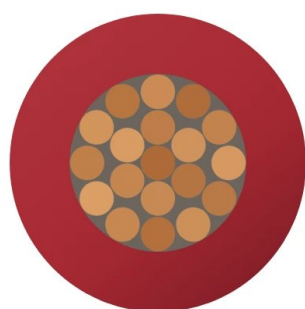
-40 to +125 °C (Class C)

Application

Type TXL (Thin-Wall Cross-Linked) is the premier North American OEM harness wire per SAE J1128, combining concentric stranded ASTM B3 bare copper with a 0.40 mm thin-wall electron-beam cross-linked polyethylene (XLPE) insulation rated for -40 °C to +125 °C (IS

Typical uses: OEM passenger & EV harnesses, Engine bay & powertrain looms, Heavy-duty truck & bus chassis, Construction & mining vehicles, Motorsport & aerospace ground support

Construction



Cross-section, not to scale

1	Concentric stranded copper	ASTM B3
2	Thin-wall cross-linked XLPE	SAE J1128
3	Concentric mat-seal surface finish	SAE J1128

Technical data

Typical values

Rated voltage	≤60 V DC / ≤25 V AC	Wet dielectric test	1.0 kV AC rms for 1 min (after 4 h in 5 % NaCl solution)
In-line spark test	3.0 kV AC rms	Continuous operating temp.	-40 °C to +125 °C (3000 h Class C)
Short-term overload / hot-set	+150 °C (240 h) · +250 °C short-circuit without melt-through	Cold bend test	-40 °C for 4 hours without cracking
Nom. wall thickness (24–14 AWG)	0.40 mm (0.016 in)	Nom. wall thickness (12 / 10 / 8 AWG)	0.46 mm (12 AWG) · 0.56 mm (10 AWG) · 0.71 mm (8 AWG)
Pinch & sandpaper abrasion	Exceeds SAE J1128 Table 5 XLPE abrasion requirements	Flame resistance	Self-extinguishing within 70 s (50 mm max burn)
Fluid & solvent resistance	Gasoline, diesel, motor oil, ATF, glycol, brake fluid & battery acid	Standards	SAE J1128 Type TXL & ISO 6722-1 Class C

Sizes

12 standard constructions

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

Designation	AWG Metric mm ²	Strands / Wall mm	Max. OD mm	Copper kg/km	Total mass ≈ kg/km	Min. bend R mm
TXL size range 12 sizes						
☐ TXL 24 AWG (0.22 mm ²)	24 AWG (0.22 mm ²)	7/32 · 0.40 mm	1.55	2.0	3.6	6.2
☐ TXL 22 AWG (0.35 mm ²)	22 AWG (0.35 mm ²)	7/30 · 0.40 mm	1.70	3.1	4.9	6.8
☐ TXL 20 AWG (0.5 mm ²)	20 AWG (0.5 mm ²)	7/28 · 0.40 mm	1.95	4.9	6.9	7.8
☐ TXL 18 AWG (0.8 mm ²)	18 AWG (0.8 mm ²)	19/30 · 0.40 mm	2.20	8.9	11.2	8.8
☐ TXL 16 AWG (1.0 mm ²)	16 AWG (1.0 mm ²)	19/29 · 0.40 mm	2.40	11.2	13.8	9.6
☐ TXL 14 AWG (2.0 mm ²)	14 AWG (2.0 mm ²)	19/27 · 0.40 mm	2.90	17.8	21.0	11.6
☐ TXL 12 AWG (3.0 mm ²)	12 AWG (3.0 mm ²)	19/25 · 0.46 mm	3.50	28.2	32.5	14.0
☐ TXL 10 AWG (5.0 mm ²)	10 AWG (5.0 mm ²)	19/23 · 0.56 mm	4.30	45.0	51.0	17.2
☐ TXL 8 AWG (8.0 mm ²)	8 AWG (8.0 mm ²)	19/21 · 0.71 mm	5.45	71.5	80.5	21.8
☐ TXL 20 AWG (19/32)	20 AWG (19/32)	19/32 · 0.40 mm	1.98	5.2	7.2	7.9
☐ TXL 12 AWG (37/28)	12 AWG (37/28)	37/28 · 0.46 mm	3.55	28.8	33.2	14.2
☐ TXL 10 AWG (37/26)	10 AWG (37/26)	37/26 · 0.56 mm	4.35	45.8	52.0	17.4

– Dimensions and maximum overall diameters conform to SAE J1128 / ISO 6722-1 Class C.

Electrical data

12 sizes

AWG Metric mm ²	Max. DC R @ 20 °C mΩ/m	Single wire in air A	In harness bundle A
24 AWG (0.22 mm ²)	84.80	7	5
22 AWG (0.35 mm ²)	54.30	10	8
20 AWG (0.5 mm ²)	34.60	14	11
18 AWG (0.8 mm ²)	19.20	19	15
16 AWG (1.0 mm ²)	14.60	23	18
14 AWG (2.0 mm ²)	9.18	32	25
12 AWG (3.0 mm ²)	5.77	43	34
10 AWG (5.0 mm ²)	3.63	58	45
8 AWG (8.0 mm ²)	2.28	78	61
20 AWG (19/32)	33.20	14	11
12 AWG (37/28)	5.68	43	34
10 AWG (37/26)	3.58	58	45

– Current ratings are reference values at +25 °C ambient; derate for multi-wire harness bundles and elevated engine-bay temperatures.

Standards and approvals

- ✓ SAE J1128 Type TXL
- ✓ ISO 6722-1 Class C (+125 °C)
- ✓ Ford ESB-M1L123-A
- ✓ Chrysler MS-8288
- ✓ GM GMW15626

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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/txl-automotive-cross-linked-wire



Typical values for this cable type, based on SAE J1128 / ISO 6722-1 Class C. Values for your order are confirmed in the quotation. Subject to change without notice.
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