



M81044 dual-wall XL-polyalkene/PVDF aerospace wire

M81044

MIL-DTL-81044 Dual-Wall Cross-LinkedPVDF/Polyalkene

SAE AS81044 / MIL-DTL-81044 600 V -65...+150 °C dual-wall e-beam cross-linked polyalkene



SAE AS81044 / MIL-DTL-81044

-65 °C to +150 °C

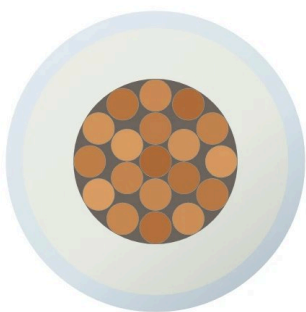
Dual-Wall XL-Polyalkene / PVDF

Application

Aerospace, defence and professional motorsport dual-wall hook-up wire (M81044) built to SAE AS81044 / MIL-DTL-81044 (/6, /9, /12, /13), combining an electron-beam cross-linked polyalkene primary dielectric with a tough, clear or pigmented cross-linked.

Typical uses: Military & Commercial Avionics Rack & Cockpit Harnesses, Armoured Ground Vehicles, Radar Shelters & Missile Launchers, Formula, Le Mans Prototype & Rally Motorsport Engine Looms, Naval Shipboard Combat Systems & Submarine Consoles, High-Reliability Downhole & Industrial Sensor Instrumentation

Construction



Cross-section, not to scale

- 1 19-strand or 37-strand tinned (/9, /12) or silver-plated (/6, /13) copper
- 2 E-beam cross-linked polyalkene primary dielectric
- 3 E-beam cross-linked PVDF (Polyvinylidene Fluoride) outer jacket

Technical data

Typical values

Rated voltage	600 Vrms (DC and AC up to 2,000 Hz)	Dielectric withstand (wet)	2.5 kVrms immersion test (100 % routine)
High-frequency spark test	6.0 kVrms in-line dry spark test (100 % of length)	Insulation resistance	≥ 5,000 MΩ·km at +20 °C
Operating temperature	−65 °C to +150 °C continuous	Short-term / solder resistance	+300 °C heat aging / zero melt under hot soldering iron
Slash sheets	M81044/12 (Light SnCu) · M81044/13 (Light AgCu) · M81044/9 (Normal SnCu) · M81044/6 (Normal AgCu)	Size range	30 AWG to 12 AWG (M81044/12 & /13) · 26 AWG to 4 AWG (M81044/9 & /6)
Min. bend radius	3 × OD fixed · 5 × OD harness flexing	Aerospace fluids	Resistant to MIL-PRF-5606 / Skydrol hydraulic fluid, JP-8 jet fuel, MIL-PRF-23699 lube oil & de-icing fluid
Flammability	Passes MIL-DTL-81044 / SAE AS4373 60° & vertical self-extinguishing flame test	Standards	SAE AS81044 / MIL-DTL-81044

Sizes

12 standard constructions

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

MIL Part Number	Size AWG	Stranding (N × AWG)	Cond. OD mm	Nom. OD mm (in.)	Max R20 Ω/km	Max Weight kg/km
M81044/12 Light-Weight Dual-Wall Tinned Copper (30 AWG to 12 AWG, 600 V) 8 sizes						
☐ M81044/12-28-*	28 AWG Light	7 × 36 AWG SnCu	0.38	0.69 (0.027")	227.0	1.15
☐ M81044/12-26-*	26 AWG Light	19 × 38 AWG SnCu	0.48	0.84 (0.033")	135.5	1.79
☐ M81044/12-24-*	24 AWG Light	19 × 36 AWG SnCu	0.61	0.97 (0.038")	86.0	2.68
☐ M81044/12-22-*	22 AWG Light	19 × 34 AWG SnCu	0.76	1.09 (0.043")	53.1	3.87
☐ M81044/12-20-*	20 AWG Light	19 × 32 AWG SnCu	0.97	1.27 (0.050")	32.0	5.80
☐ M81044/12-18-*	18 AWG Light	19 × 30 AWG SnCu	1.22	1.52 (0.060")	20.4	8.78
☐ M81044/12-16-*	16 AWG Light	19 × 29 AWG SnCu	1.37	1.73 (0.068")	15.8	11.16
☐ M81044/12-12-*	12 AWG Light	37 × 28 AWG SnCu	2.26	2.69 (0.106")	6.8	28.30
M81044/9 Normal-Weight Dual-Wall Tinned Copper (24 AWG to 8 AWG, 600 V) 4 sizes						
☐ M81044/9-22-*	22 AWG Normal	19 × 34 AWG SnCu	0.76	1.37 (0.054")	53.1	4.76
☐ M81044/9-20-*	20 AWG Normal	19 × 32 AWG SnCu	0.97	1.57 (0.062")	32.0	6.85
☐ M81044/9-16-*	16 AWG Normal	19 × 29 AWG SnCu	1.37	2.06 (0.081")	15.8	12.65
☐ M81044/9-8-*	8 AWG Normal	133 × 29 AWG SnCu	4.24	5.23 (0.206")	2.3	87.80

– Replace '*' in the MIL part number with the MIL-STD-681 colour code (e.g., -9 for White, -0 for Black, -92 for White with Red stripe). Silver-plated M81044/13 and M81044/6 have identical dimensions.

Standards and approvals

- ✓ SAE AS81044 / MIL-DTL-81044 (/6, /9, /12, /13) Compliant
- ✓ SAE AS50881 Aerospace Harness Selection Compliant

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/mil-dtl-81044-dual-wall-cross-linkedpvd-polyalkene-aerospace-hook-up-wire



Typical values for this cable type, based on SAE AS81044 / MIL-DTL-81044 (M81044/6, /9, /12, /13). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.