



power connection cable series

# Super-Trex 600 V Welding Cable

UL 600 V Class M (34 AWG) rope-lay tinned copper TSE power &amp; welding cable



UL 600 V Welding &amp; Power

Class M (34 AWG) Tinned Cu

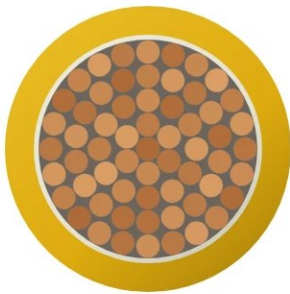
-50 °C to +105 °C TSE Jacket

## Application

Super-Trex 600 V Heavy-Duty Flexible Welding & Power Cable (6 AWG to 500 MCM) engineered per UL 600 V Welding / Power Lead standards, CSA and NEC Article 630—combining ultra-fine Class M (34 AWG / 0.16 mm) rope-lay tinned copper.

**Typical uses:** Steel Mills, Foundries & Blast-Furnace Maintenance, Shipbuilding, Drydocks & Offshore Rig Fabrication, Surface & Underground Mining Shovel / Dragline Shops, Generator Rental Load-Banks & 600 V Temporary Bus, Robotic Welding Booms & Overhead Busway Drops

## Construction



Cross-section, not to scale

- 1 Class M (34 AWG / 0.16 mm) rope-lay tinned copper conductor
- 2 Low-friction polyester separator tape
- 3 600 V Heavy-Duty Thermoset Elastomer (TSE) jacket

## Technical data

Typical values

|                              |                                                                           |                          |                                                                     |
|------------------------------|---------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|
| Rated voltage                | 600 V AC / DC (UL Listed Welding & Power Lead)                            | Factory dielectric test  | 3,000 V AC rms & 10 kV spark test on 100 % of reel length           |
| Max. DC resistance @ 20 °C   | 0.528 Ω/km (2 AWG) · 0.210 Ω/km (2/0 AWG) · 0.132 Ω/km (4/0 AWG)          | 600 V NEC ampacity (air) | 190 A (2 AWG) · 300 A (2/0 AWG) · 405 A (4/0 AWG) · 515 A (350 MCM) |
| Continuous conductor temp.   | +105 °C Dry / +90 °C Wet or Oil                                           | Cold-bend flexibility    | -50 °C cold bend without cracking                                   |
| Short-circuit / slag contact | +250 °C short-circuit · Chars without melting under hot weld slag         | Individual strand gauge  | 34 AWG (0.160 mm / 0.0063 in) per ASTM B172 Class M                 |
| 600 V TSE wall thickness     | 2.03 mm (6-1 AWG) · 2.41 mm (1/0-4/0 AWG) · 2.79 mm (250-500 MCM)         | Min. bend radius         | 4 × OD (static) · 5 × OD (dynamic flexing)                          |
| Oil, coolant & acid          | Passes UL Oil Res I & II (+60/+75 °C oil immersion) & cutting fluid tests | Flame retardancy         | UL VW-1 · CSA FT1 · MSHA flame-resistant print available            |
| UV, ozone & water            | Sunlight resistant (720 h UV) and ozone chamber qualified                 | Standards                | UL 600 V Welding Cable · CSA C22.2 No. 96 · NEC Article 630         |

## Sizes

7 standard constructions

Tick the sizes you need and send this page to [info@tebaoflex.com](mailto:info@tebaoflex.com) or WhatsApp +86 185 9591 3361.

| Order size                                    | 34 AWG Tinned Cu strands               | Nominal Ø<br>mm | Weight ≈<br>kg/km | 600V Cont.<br>A | Weld 60%<br>A |
|-----------------------------------------------|----------------------------------------|-----------------|-------------------|-----------------|---------------|
| AWG Sizes (6 AWG to 4/0 AWG) 5 sizes          |                                        |                 |                   |                 |               |
| <input type="checkbox"/> 600V Class M 2 AWG   | 1,666 × 34 AWG (33.6 mm <sup>2</sup> ) | 12.7            | 430               | 190             | 300           |
| <input type="checkbox"/> 600V Class M 1 AWG   | 2,107 × 34 AWG (42.4 mm <sup>2</sup> ) | 14.5            | 550               | 220             | 350           |
| <input type="checkbox"/> 600V Class M 1/0 AWG | 2,646 × 34 AWG (53.5 mm <sup>2</sup> ) | 16.0            | 685               | 260             | 420           |
| <input type="checkbox"/> 600V Class M 2/0 AWG | 3,325 × 34 AWG (67.4 mm <sup>2</sup> ) | 17.5            | 845               | 300             | 500           |
| <input type="checkbox"/> 600V Class M 4/0 AWG | 5,320 × 34 AWG (107 mm <sup>2</sup> )  | 21.1            | 1,310             | 405             | 650           |
| kcmil / MCM Sizes (250 to 500 MCM) 2 sizes    |                                        |                 |                   |                 |               |
| <input type="checkbox"/> 600V Class M 350 MCM | 8,806 × 34 AWG (177 mm <sup>2</sup> )  | 26.7            | 2,140             | 515             | 850           |
| <input type="checkbox"/> 600V Class M 500 MCM | 12,540 × 34 AWG (253 mm <sup>2</sup> ) | 30.7            | 2,990             | 620             | 1,050         |

– 6 AWG (665×34 AWG, 9.7 mm OD) and 4 AWG (1,064×34 AWG, 11.2 mm OD) are also stocked for lighter TIG/MIG torches and ground straps.

## Standards and approvals

- ✓ UL Listed 600 V Welding & Power
- ✓ CSA C22.2 No. 96 FT1
- ✓ NEC Article 630 & ASTM B172

## 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/600-v-heavy-duty-flexible-welding-cable](https://tebaoflex.com/cables/600-v-heavy-duty-flexible-welding-cable)



Typical values for this cable type, based on UL Listed 600 V Welding / CSA C22.2 No. 96 / NEC Art. 630. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.