Mining Market Solutions

TPC Wire & Cable is leading supplier of electrical wire, cable, connectors, and assemblies engineered to perform in harsh mining environments. Our flexible-yet-durable welding, power, and reeling cables stand apart from all other ruggedized cables on the market in their ability to withstand the mechanical abuses, smelting processes, and general hazards associated with mines. The result? Longer-lasting, MSHA-approved cable products that save time, labor, and overall cost of ownership while reducing the opportunity for citations and supporting safety initiatives.

Testimonial

Travis Kirk,
Prep Plant Supervisor
The Marshall County Coal Company’s Marshall County Mine

“We have been using Super-Trex® Welding Cables from TPC Wire and Cable. They are lasting much longer and with fewer repairs. Our MSHA citations have also been almost eliminated!”

TPC Product Families Used In Mining

Super-Trex® — Rugged, single and multi-conductor configurations 600 V to 2,000 V for power and control applications exposed to impact, abrasion, cutting, tension, flexing, and reeling hazards

Chem-Gard® — Fluoropolymer-insulated and fluoropolymer-jacketed cable for -60°C to +200°C environments with heat, cold, and extreme chemical exposure

Thermo-Trex® — High-temperature cable and accessories ranging 400°F to extreme 3,000°F for power and control as well as thermocouple extension and igniter wire applications

Power-Trex® — Type SH, Type MV-105, and other flexible medium voltage cable assemblies 5kV-35kV for temporary and emergency power
U.S. Coal Mine Digs TPC Welding Cable

**Customer Problem**
A leading coal mine in the Midwest was experiencing weld cable failures due to the rough and rocky landscape of the site. With multiple layers to the tough conditions, their current cable was exposed to abrasion, direct impact from being run over, oil, and weld splatter.

**TPC Solution**
One of our field specialists carefully assessed the situation and considered all environmental hazards. TPC’s **Super-Trex® 600V Welding Cable** was introduced – a rugged solution with a 25% thicker wall than ordinary cable and 100% fabric serve, which makes it flame-, heat-, and tear-resistant. Plus, this welding cable has MSHA approval. When citations can be issued and money can be lost, it’s important to maintain full compliance.

**Customer’s Result**
By switching from a commodity cable to a rugged TPC cable, this customer successfully achieved an increase in production by 294 hours and a cost savings of $21,465 over a 22-month period.

![Current Product vs. TPC Product Graph](image)

**Overall Cost Savings in 22 Months = $21,465**

& **Increased Production by 294 HOURS**

Source: TPC Cost Value Analysis Report #3121
Frequently Requested by Mines & Quarries

Super-Trex® 600 Volt Welding Cable
Longer-lasting, MSHA-approved cable for mining applications

- UL Listed
- CSA
- RoHS Compliant
- UV Resistant
- FT-1 Flame Rating
- Type SC
- 600 V
- Max Conductor Temperature 90°C
- Extreme Usage
- MSHA Approved (2 AWG and Larger)

- 2 1/2 times more stranding than conventional welding cable for ease of use, reduction of conductor fatigue, and a high resistance to impact
- 100% fabric serve for improved resistance to tearing and jacket shrink-back
- Specially compounded TSE jacket 25% thicker than ordinary cable to maintain all-weather flexibility and withstand impact, chunking, abrasion, tearing, and extreme heat
- Footage indicators marked along the jacket to support measuring and waste reduction
- Ask us about jacket color options

Molded Connector Assemblies
Connectors fully bonded to TPC’s Super-Trex® 600 Volt Welding Cable creates a truly unbeatable combination

- All-rubber construction reduces pull-back and cable stress
- Molding creates environmental seal against dust, dirt, water, and chemicals
- Quick turn disconnect provides a secure connection

**BALL NOSE:** Mates with any series 18, E1018 Series or ball nose style plugs.

**TAPER NOSE:** Mates with any series 16, E1016, J Series or taper nose style plugs.

Full 180° twist to lock into place, which improves upon the typical 3/4” turn used by commodity brands for mating.

Super-Trex® Type W Portable Power & Automation Cable
Portable power cable for extra-hard usage

- UL Listed
- cUL Listed
- ICEA S-75-381
- UV Resistant
- Type W – 2,000 V
- IEEE 1202 Flame Rating
- Extra-Hard Usage
- MSHA Approved
- FT-5 Flame Rating
- All Weather Usage
- Suitable for Class I, II, III, Division 1 & 2*
- Operating Temp. Range -40°C to 90°C

- Rayon reinforced synthetic center that prevents wicking, improves flexibility, and adds tensile strength
- Concentric rope lay bunch-stranded copper for long life in reeling, flexing, and twisting applications
- Insulation rated 90°C to resist dry rot and for high dielectric and mechanical properties
- Braid embedded in jacket to resist impact, abrasion, twisting, and pulling
- Specially compounded TSE jacket for superior first line defense against tearing, abrasion, impact, chemicals, heat, and weather
## TPC Products Solve Problems in Mining Applications

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<tr>
<th>AREA</th>
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| **Truck Shop/ Truck Electrical Maintenance** | **Extension/Power Cords** | • Super-Trex® Ultra-Gard® Portable Cord (Type TC-ER Rated)  
• Super-Trex® Triple-Gard® Portable Cord |
| | **Light Strands** | • Super-Trex® Ultra-Gard® Portable Cord (Type TC-ER Rated)  
• Super-Trex® Triple-Gard® Portable Cord  
• Super-Trex® Portable Power & Automation Cable |
| | **Welders** | • Super-Trex® Weld Cable  
• Weld Cable Assemblies |
| | **Water/Dust Resistant Connections** | • Quick-Connect™ Assemblies |
| **Surface (Open-Pit) Mining** | **Drills** | • Trex-Onics® Retractable Coil Cords/Coil Cord Quick-Connects™ |
| | **Drop Lines** | • Super-Trex® Portable Power & Automation Cable |
| | **Process Area** | • Super-Trex® Ultra-Gard® Portable Cord (Type TC-ER Rated)  
• Super-Trex® Triple-Gard® Portable Cord  
• Super-Trex® Portable Power & Automation Cable |
| | **Pumping Operations** | • Super-Trex® Portable Power & Automation Cable  
• Super-Trex® VFD Shielded Power Cable |
| | **Conveyor Pull Cord Cable** | • TPC Pull Cord Cable |
| **Mine Processing Plant/Foundry** | **Portable Power** | • Super-Trex® Ultra-Gard® Portable Cord (Type TC-ER Rated)  
• Super-Trex® Triple-Gard® Portable Cord  
• Super-Trex® Portable Power & Automation Cable |
| | **Smelting Process** | • Chem-Gard® 200 Cable  
• Chem-Gard® 150 Cable  
• Thermo-Trex® 2800 Cable  
• Thermo-Trex® 2000 Cable  
• Thermo-Trex® 850 Cable  
• Thermo-Trex® 500-K Cable |
| | **Refining Process** | • Chem-Gard® 200 Cable  
• Chem-Gard® 150 Cable |
| | **Pumping Operations** | • Super-Trex® Portable Power & Automation Cable  
• Super-Trex® VFD Shielded Power Cable |
| **Power Conditioning** | **Medium Voltage Power (2 kV – 35 kV)** | • Super-Trex® Type SH Flexible Medium Voltage Single Conductor Power Cable  
• Super-Trex® Type MV-105 Flexible Medium Voltage Single Conductor Power Cable  
• Super-Trex® Unshielded Jumper Cable – 15 kV  
• TPC Medium Voltage Single Conductor Power Cable Assemblies |
MSHA Approved Cord & Cable

Super-Trex® Ultra-Gard® Portable Cord Type TC-ER (All Sizes)

Super-Trex® Black Triple-Gard® Portable Cord (All Sizes)

Super-Trex® Multi-Conductor P&R Cable (16 AWG Only)

Super-Trex® 2-6 Conductor Portable Power & Automation Cable (8 to 2 AWG)

Super-Trex® Type W Portable Power & Automation Cable (8 to 1/0 AWG)

Super-Trex® 4 Conductor Aramid Reinforced Orange Portable Power Reeling Cable (All Sizes)

Super-Trex® 600 Volt Welding Cable (2 to 4/0 AWG)

Trex-Onics® Overall Shielded Continuous Flex Multi-Conductor Cable (24 AWG – 16 AWG)

Trex-Onics® Individually Shielded, Multi-Pair Control Cable (2 + Pairs 24 AWG – 16 AWG)

HEAVY-DUTY CABLE STRIPPER

Tyler McLaughlin, TT Electronics-IMS

“Just wanted to say your heavy-duty cable stripper has helped us maintain a safer work environment for our heavy cable assembly area. We were using a razor knife prior to getting this tool due to varying jacket thickness on one cable. Your tool gets most of the job done with less time taken and fewer hazards to the operator!”

- RoHS compliant
- Ideal for rubber jackets
- Easily strips 1/4” to 2-1/4” cable