MINING MARKET SOLUTIONS

TPC WIRE & CABLE

Mining Market Solutions

TPC Wire & Cable is a 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.

Designed to Withstand Abuse in the Mining Industry

- **Super-Trex®:** Designed to withstand high heat and provide excellent protection in harsh applications. These high quality cables are designed with our proprietary Super-Trex TSE jacket to protect the conductors from chemicals, abrasion, oils, impact, ozone, tearing, flame and heat. The insulation system resists oils, coolants, acids and chemicals.

- **Chem-Gard®:** Designed for a broad range of applications where heat, cold or extreme chemical exposure can affect cable performance. Chem-Gard uses a fluoropolymer insulation and jacket that gives the cable a temperature performance range from -60°C to +200°C. The fluoropolymer jacket also allows the cable to survive in very acidic, alkali or solvent based environments.

- **Thermo-Trex®:** High temperature cables and accessories designed for temperatures ranging from 400°F up to an extreme of 3000°F. This line includes power and control cables as well as thermocouple extension wires and sleeving options.

Testimonial

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

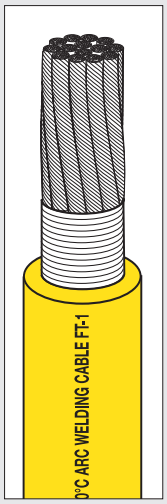
"We have been using Super-Trex® Welding Cables from TPC Wire and Cable. They are lasting much longer and with fewer repairs. Our MSHA citations have also been almost eliminated!"

LOOK FAMILIAR?

Ordinary mining cable susceptible to nicks, cuts, abrasion, and other damage is a drag on time, resources, and productivity – not to mention cause for MSHA citations and fines. Spend less time inspecting, repairing, and replacing cable. Choose TPC for longer-lasting cable that reduces your downtime, labor, and overall costs. **You'll be glad you did.**

TPC provides solutions for the Mining Industry

Case Study



Customer Problem

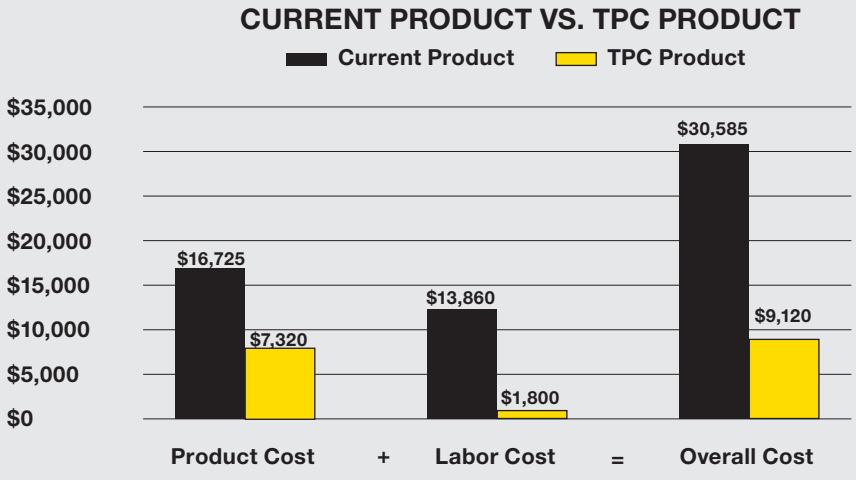
A leading coal mine in the Midwest was experiencing weld cable failures due to the rough and rocky landscape of the site. With multiple layers to the tough conditions, their current cable was exposed to abrasion, direct impact from being run over, oil, and weld splatter.

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.



Overall Cost Savings in 22 Months =

$21,465

&

Increased Production by

294 HOURS

Value Analysis Report #3121

TPC Featured Products for 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

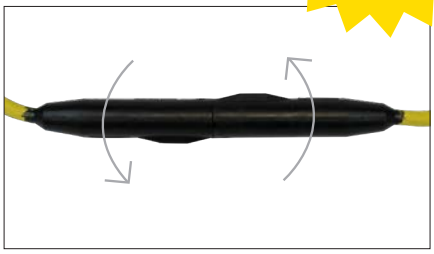
Connectors fully bonded to TPC's Super-Trex® 600 Volt Welding Cable creates a truly unbeatable combination

- 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

ALL ASSEMBLIES RATED TO IP69K

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

AREA	APPLICATION	TPC PRODUCTS
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-Connex™ Assemblies
Surface (Open-Pit) Mining	**Drills**	• Trex-Onics® Retractile Coil Cords/Coil Cord Quick-Connexs™
	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
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 • Thermo-Trex® 2800 Cable • Thermo-Trex® 2000 Cable • Thermo-Trex® 850 Cable • Thermo-Trex® 500-K Cable
	Refining Process	• Chem-Gard® 200 Cable
	Pumping Operations	• Super-Trex® Portable Power & Automation Cable • Super-Trex® VFD Shielded Power Cable
Power Distribution	**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)

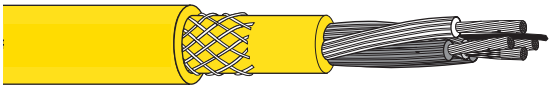
Super-Trex® Type W Portable Power & Automation Cable (8 to 1/0 AWG)

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

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

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

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



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

U.S. Department of Labor
MSHA
Mine Safety & Health Administration

Custom Designed to Meet Your Needs

TPC Wire & Cable offers custom-engineered products that are designed using specific application and environmental information supplied by the customer. These product solutions represent a unique and valuable service offered by TPC, whose engineers are experienced in the electrical, mechanical, and industrial engineering disciplines. There is no job that our team can't tackle. Our engineering team is ready to design a custom solution for you!

TPC WIRE & CABLE
A Trexon Company

TPC WIRE & CABLE, A TREXON COMPANY
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