

# Comparison of Mold-cured Mining Cable vs Cheaper CV-cured Product



## Independent Third-party Test



# Stranding

- **Competitor A** – Herringbone strand does not carry tension uniformly and springs open under bending load.
- **Competitor B** – Unidirectional lay allows cable to twist under tension.

**Tiger<sup>®</sup> Brand** – AmerCable's proprietary strand design resists torsion and carries tension uniformly.



# Electrical Properties After Tension Reeling (DC and IR Tests)

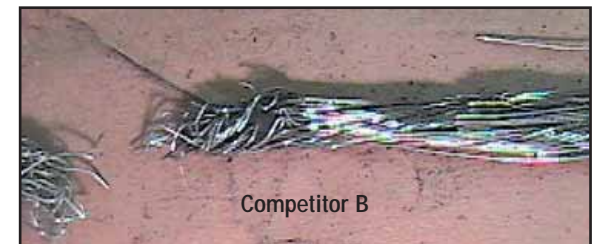
- **Competitor A** – Herringbone strand opening up caused wear on insulation and subsequent electrical (DC) failure at 15,000 cycles.
- **Competitor B** – Test terminated after 4,715 cycles due to ground check failure. Electrical test (IR) on EP insulated power conductors was low even at this point.



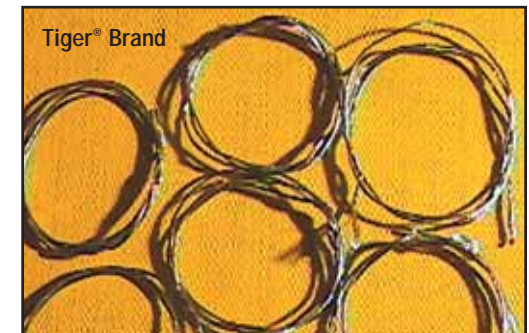
**Tiger® Brand** – passed DC electrical tests and maintained excellent IR after 15,000 cycles

# Ground Check Insulation Properties

- **Competitor A** – Uses soft EP rubber on GC wire. This allows broken wires to easily penetrate the insulation.
- **Competitor B** – Uses soft EP rubber on GC wire. This also causes the strand to kink and break (4,715 cycles).



**Tiger<sup>®</sup> Brand's high modulus polypropylene insulated GC wire cycled 15,000 times with NO broken wires and passed DC test.**



# Jacket Comparison



Test	AmerCable Tiger® Brand	Competitor A	Competitor B	ICEA Minimum
Tensile, PSI	2900	2700	2500	2400
Tensile @200% Elongation	1110	650 (failure)	850	700
Tear, PPI	50	42	41	40

# Jackets After Tension Reeling

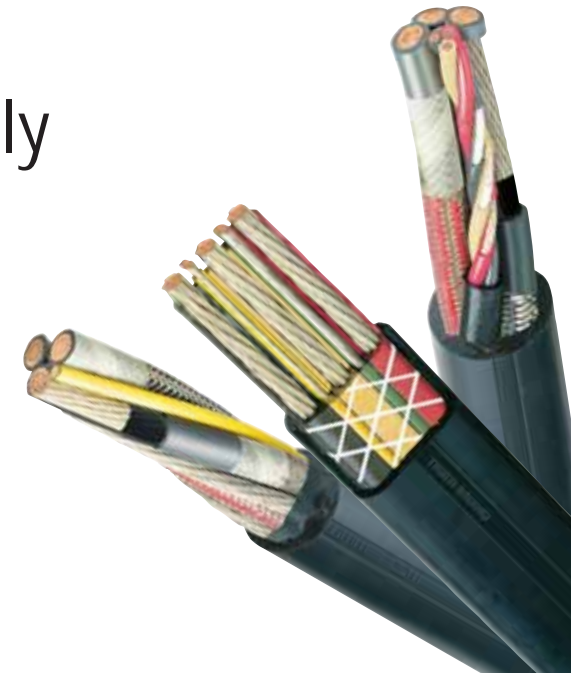
- **Competitor A** – Jacket abrasion shown at 2000 cycles. Will not glide easily over rocks and sharp objects.
- **Competitor B** – Jacket abraded through outer layer in 1000 cycles.

**Tiger® Brand – virtually no abrasions after 15,000 Cycles**



# Conclusion:

- AmerCable has developed specialized stranding for each element of the cable
- AmerCable has electrically and mechanically sound insulations for power and GC conductors
- AmerCable shielding and assembly are specially designed for extended cable life
- AmerCable jacket compounds and processes are focused on the rigorous environment of mining applications





## Bottom Line?

- Tiger® Brand out performs the competition in ALL categories!
- Mold-cured cables are much better suited for rugged mining applications

**If maximizing your mine's productivity is important, be sure to specify the cables that meet your highest standards!**

