

# Cable Solutions for Mining Vehicles

## BETAtherm<sup>®</sup> – Core Cables for Extreme Conditions



The largest lorries in the world are used in mines – where gravel, coal, ore, copper, gold, diamonds and oil sand are extracted.

Everything about these heavy-duty trucks is oversized: load capacity, body, engine, driver's cab and tyres. And equally oversized cables are required – with maximum current carrying capacity and reliability, even at extreme temperatures ranging from  $-55\text{ }^{\circ}\text{C}$  to extreme heat.

### Extremely robust cables for extremely robust vehicles

Our robust, halogen-free and electron-beam cross-linked **BETAtherm<sup>®</sup>** core cables impress with improved fire behaviour, high temperature and thermal pressure resistance – even in the event of short circuits. Thanks to specially developed insulation made from our own compound, they offer exceptional resistance to UV radiation, oil and fuels.

### Reliability under extreme conditions

Challenging conditions prevail in mines: extreme temperature fluctuations, dust and dirt particles in the air and high loads on vehicles and components. Reliability and resilience count here – because any downtime jeopardizes the ongoing extraction of raw materials. Our cables ensure that mining vehicles function perfectly even under the most difficult conditions.

## Advantages:

- Very high temperature resistance
- Operating temperature –55 °C to +145 °C
- Sustainable thanks to very long service life (220,000 h at 90 °C, 5,000 h at 145 °C)
- UV, oil and fuel resistant
- Highest fire protection properties
- Short-circuit protection (heat pressure resistant)  
Halogen-free
- Electron-beam cross-linked
- Various certifications, including VDE, CPR, UL 3271/3820, UL/cUL/CSA

## Put your trust in our expertise and experience

With a high level of vertical integration and innovative Swiss quality, we fulfil individual customer requirements and develop customised cable solutions for the most extreme environments. Studer Cables stands for innovation and sustainability – with products that make an additional contribution to environmental protection through their longevity.

## Maximum safety and reliability

Our **BETAtherm**® cables have been specially developed to meet the increasing requirements for fire protection and operational safety. The cross-linked insulating materials minimise fire risks and ensure a high level of operational safety even in the event of short circuits. To maximise quality and product safety, we rely on state-of-the-art production facilities and continuous research in our laboratories. Our innovative polymer plastics improve the insulation properties, increase the temperature tolerances and service life of the cables and offer additional safety features.



## Single-core

	Nominal voltage	Temperature range	Cross sections	Certifications
<b>BETAtherm</b> ® 145	600 / 1000 V	–55 °C bis +145 °C	0.25 mm <sup>2</sup> bis 300 mm <sup>2</sup>	VDE, DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR

## Single-core with UL certification

	Nominal voltage	Temperature range	Cross sections	Certifications
<b>BETAtherm</b> ® 145 UL/CSA/cUL/ 3271/3820	1000 V	–55 °C bis +145 °C	0.25 mm <sup>2</sup> bis 240 mm <sup>2</sup>	UL, CSA, cUL



Further information can be found in our data sheets on our website: <https://studercables.com/en/products/>

In addition to first-class products, Studer Cables offers comprehensive advice, precise calculations and other services. If you have any questions, please do not hesitate to contact us personally.