

Cable Solutions for High and Extra-High Voltage Installations

BETAtherm® and **BETAflam®** – For Maximum Reliability



Energy is the backbone of modern infrastructure – it drives machinery, lights up cities, and enables communication. Cables are the lifelines that deliver energy to consumers. To ensure a safe and continuous power supply, robust energy distribution systems and reliable components are essential. Our electron beam cross-linked multi-core cables provide maximum reliability in high and extra-high voltage installations – ideal for transformers and switchgear.

Maximum Safety Under Extreme Conditions

High-voltage installations are exposed to demanding conditions: extreme temperatures, UV radiation, and oil exposure. Our specially developed cables are designed to meet these challenges. Our **BETAflam®** and **BETAtherm®** 145 industrial cables are the top choice for these applications. They are halogen-free and highly heat-resistant. Additionally, they offer a long service life and actively contribute to sustainability. Our electron beam cross-linked industrial cables stand out with:

- Excellent resistance to UV radiation, oil, and fuels
- Increased temperature and fire resistance
- Maximum flexibility for versatile applications

Innovation & Quality – Ensuring Maximum Operational Safety

The safety and availability of technical installations are becoming increasingly important. In addition, regulations are placing greater emphasis on fire prevention and protection against fire hazards. The fundamental protection against smoke damage is achieved by eliminating acidic and toxic gases and by reducing the amount of smoke emitted. Therefore, all cable insulation should be halogen-free and flame-retardant. Cross-linked insulation materials contribute to fire prevention in electrical installations, as they remain flame-resistant even in the event of short circuits. **BETAflam®** and **BETAtherm®** cables are designed to meet these requirements.

Advantages:

- Excellent weather resistance
- UV, oil, and fuel resistance
- Sustainability due to long service life (220,000 h at 90 °C, 5,000 h at 145 °C)
- Very high temperature resistance
- Operating temperature: -55 °C to +145 °C
- Superior fire protection properties
- Short-circuit resistance
- Halogen-free
- Electron beam cross-linked
- UL 4486, cUL AWM I/II

Custom Products with Swiss Quality

With our high manufacturing depth and Swiss precision, we develop tailor-made solutions for industry and energy supply. Studer Cables stands for innovative, customized cable products that guarantee maximum safety and sustainability. To ensure maximum product safety, we rely on cutting-edge production technologies and continuous research into innovative polymer materials – for powerful and safe cables.

Choose Studer Cables – for a safe, sustainable energy supply.



Single-core

Other cross-sections on request

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

Multi-core and shielded cables

Other cross-sections and number of cores on request

	Nominal voltage	Temperature range	Cross sections	Certifications
BETAflam® 145 flex	600 / 1000 V	-55 °C to +145 °C	2 × 0.5 mm ² to 5 × 95 mm ²	DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR
BETAflam® 145 C-flex	600 / 1000 V	-55 °C to +145 °C	2 × 0.5 mm ² to 5 × 35 mm ²	DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR

Single-core and multi-core cables with UL certification

Other cross-sections and number of cores on request

	Nominal voltage	Temperature range	Cross sections	Certifications
BETAtherm® 145 UL/CSA 3266	300 V	-55 °C to +145 °C	AWG24 to AWG12	UL, CSA
BETAtherm® 145 UL/CSA/cUL/ 3271/3820	1000 V	-55 °C to +145 °C	0.25 mm ² to 240 mm ²	UL, CSA, cUL
BETAflam® 145 flex UL/cUL AWM 4486	1000 V	-55 °C to +145 °C	2 × 0.5 mm ² to 5 × 95 mm ²	UL, cUL
BETAflam® 145 C-flex UL/cUL AWM 4486	1000 V	-55 °C to +145 °C	2 × 0.5 mm ² to 5 × 35 mm ²	UL, 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.

Studer Cables – competent and indispensable