

# Industrial Solutions

High performance cables for Industrial applications

- Very high resistance to temperature (up to +155 °C)
- Electron-Beam cross-linked
- increased thermal pressure resistance (short-circuit protection)
- Very long service life (220 000 h at 90 °C, 20 000 h at 125 °C)
- Aging resistant
- Excellent fire safety properties
- Halogen-free
- Resistant to media
- Resistant to UV
- Numerous approvals available (More information in our datasheets)



## Single-core cables

|                       | Voltage    | Temperature range | Cross-section                                 | Approvals                                          |
|-----------------------|------------|-------------------|-----------------------------------------------|----------------------------------------------------|
| <b>BETAtherm® 90</b>  | 600/1000 V | -40 up to 105 °C  | From 1 mm <sup>2</sup> to 240 mm <sup>2</sup> | VDE, ESTI, CPR                                     |
| <b>BETAtherm® 145</b> | 600/1000 V | -55 up to 145 °C  | From 1 mm <sup>2</sup> to 300 mm <sup>2</sup> | VDE, DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR |
| <b>BETAtherm® 155</b> | 600 V      | -55 up to 155 °C  | From 1 mm <sup>2</sup> to 150 mm <sup>2</sup> |                                                    |

## Multi-core cables

|                           | Voltage    | Temperature range | Cross-section                                                                         | Approvals                                     |
|---------------------------|------------|-------------------|---------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>BETAflam® 145 flex</b> | 600/1000 V | -55 up to 145 °C  | From 2 × 0.5 mm <sup>2</sup> to 5 × 95 mm <sup>2</sup>                                | DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR |
| <b>ROFLEX</b>             | 600/1000 V | -55 up to 90 °C   | From 2 × 1 mm <sup>2</sup> to 5G70, 1 × 50 mm <sup>2</sup> to 1 × 240 mm <sup>2</sup> | ESTI (CH-N1BQ-F)                              |

## Shielded cables

|                              | Voltage      | Temperature range | Cross-section                                          | Approvals                                    |
|------------------------------|--------------|-------------------|--------------------------------------------------------|----------------------------------------------|
| <b>BETA</b> flam® 145 C-flex | 600 / 1000 V | -55 up to 145 °C  | From 2 × 0.5 mm <sup>2</sup> to 5 × 35 mm <sup>2</sup> | DNV/GL, Lloyds Register, BUREAU VERITAS, CPR |

## UL approved single core and cables

|                                              | Voltage | Temperature range | Cross-section                                          | Approvals    |
|----------------------------------------------|---------|-------------------|--------------------------------------------------------|--------------|
| <b>BETA</b> therm® 145 UL/CSA 3266           | 300 V   | -55 up to 145 °C  | From AWG24 to AWG12                                    | UL, CSA      |
| <b>BETA</b> therm® 145 UL/CSA/cUL/ 3271/3820 | 1000 V  | -55 up to 145 °C  | From 1 mm <sup>2</sup> to 240 mm <sup>2</sup>          | UL, CSA, cUL |
| <b>BETA</b> therm® 155 UL/cUL 3289           | 600 V   | -55 up to 155 °C  | From 1 mm <sup>2</sup> to 120 mm <sup>2</sup>          | UL, cUL      |
| <b>BETA</b> flam® 145 flex UL/cUL AWM 4486   | 1000 V  | -55 up to 145 °C  | From 2 × 0.5 mm <sup>2</sup> to 5 × 95 mm <sup>2</sup> | UL, cUL      |
| <b>BETA</b> flam® 145 C-flex UL/cUL AWM 4486 | 1000 V  | -55 up to 145 °C  | From 2 × 0.5 mm <sup>2</sup> to 5 × 35 mm <sup>2</sup> | UL, cUL      |

You can find more information in our data sheets, which can be downloaded from our website.

Thanks to the various approvals, a wide range of applications is guaranteed for the core conductors and cables. The high quality of our single core cables is guaranteed with VDE, UL, cUL and CSA certification (details can be found in our data sheets).

Our flexible single core cables **BETA**therm® 90 and **BETA**therm® 145 are tested according to Construction Products Regulation (CPR). For multi-core cables, we offer **BETA**flam® 145 flex and C-flex, which meet the current safety requirements for use in buildings.



Safety and availability are now increasingly important factors for technical installations. Legislation is also being tightened in the areas of fire prevention and adequate protection against the consequences of fire. A key contribution to fire prevention in electrical installations is offered by using cross-linked insulation materials, which increases the operational safety, even in the case of a short circuit. Our **BETAflam®** and **BETAtherm®** cables are designed specifically to meet these requirements.

For the highest level of product safety and quality, we rely on the use of state-of-the-art production facilities. In our laboratories, we continuously work on the development of new and innovative polymer compounds that are used for the production of our cables. This allows us to achieve excellent insulation properties, improved performance within temperature tolerances, longer life-span, easier handling, and additional safety features.

## Applications:

- Electrical cabinets
- Switchgears
- Machinery construction
- Cable harnessing
- Stranded wires for winding goods
- Installation
- Switching technology
- Control and automation
- Ships & Offshore

