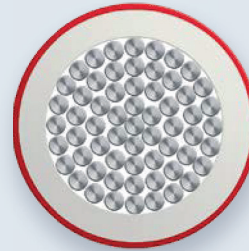


BETAtherm® 145

Single-core cable with increased environmental compatibility



Competitive advantage

- Very high resistance to temperature
- service temperature up to +145°C
- Resistance to cold down to -55°C
- Best fire performance, halogen free
- Electron-beam cross-linked
- Different approvals available


BETAtherm® 145 SO07Z-K

Application

Typical applications are internal wiring in lamps, heating appliances, electric machines (thermal class B) switchboards and distribution boxes in apparatus, mechanical and plant engineering.

Used for laying in tubes, surface wiring, direct in plaster or underneath it, as well in conduits. May not be laid directly in cable trays, cable racks or cable troughs.

Construction

- Conductor Tinned fine copper strands acc. to VDE 0295/IEC 60228, class 5
- Insulation Polyolefine copolymer, electron-beam cross-linked, HF90
- Core colour 
(further colours upon request)

Electrical properties

Nominal voltage	$U_0/U \leq 1 \text{ mm}^2$	300 V / 500 V
	$U_0/U \geq 1.5 \text{ mm}^2$	450 V / 750 V
fixed and protected installation	$U_0/U \geq 1.5 \text{ mm}^2$	600 V / 1000 V
Testing voltage		5000 V

Thermal properties

Conductor temperature	fixed installation	+145°C max.
	occasionally moved	+120°C max.
Short-circuit temperature		+280°C max.
Ambient temperature	fixed installation	-55°C min.
	occasionally moved	-35°C min.

Bending radius

Fixed installation	$> 4 \times \text{outer } \varnothing \text{ min.}$
Occasionally moved	$> 6 \times \text{outer } \varnothing \text{ min.}$

Standards / material properties

- Halogen free: IEC 60754-1, EN 50267-2-1
- No corrosive gases: IEC 60754-2, EN 50267-2-2
- No toxic gases: NF X 70-100
- Low smoke density: IEC 61034, DIN EN 61034-2, EN 50268-2
- Flame retardant: EN/IEC 60332-1-2
- Non-flame propagating: IEC 60332-3, DIN EN 60332-3, EN 50266-2
- Low fire load: DIN 51900
- Oil resistant: EN50264-1, 72h/100°C, IRM902
- Fuel resistant: EN50264-1, 168h/70°C, IRM903
- Cross-linked insulating compound HF90: IEC 60092-360

Approvals

- VDE permission no. 9887
- Germanischer Lloyd (GL)
- Lloyd's Register (LR)
- BUREAU VERITAS (BV)
- DNV certificate no. E-8964
- CHINA CLASSIFICATION SOCIETY (CCS)
- Gost R