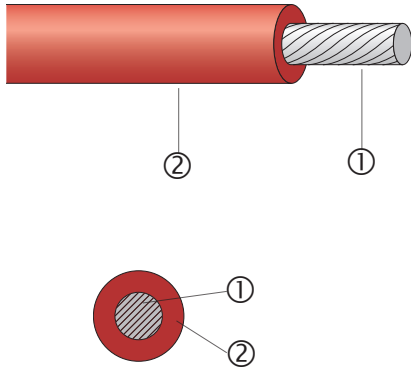


# RADOX® 125 (2<sup>nd</sup> generation)

Flexible single core



- Excellent high and low temperature and ozone resistance
- Weatherproof
- Halogen free
- Flexible, easy to strip and process
- High resistance to thermal pressure
- High abrasion resistance

## Application

For protected and fixed installation inside electrical equipment, especially suitable for the connection of motor windings, switchboards, magnets and transformers.

## Composition of cable

- ① Conductor
- ② Insulation

Stranded tin plated copper, EN 60228 / IEC 60228 cl. 5  
RADOX 125  
Type EI5 modified, EN 50363- 5  
Type HF90 modified, IEC 60092- 360  
extruded irradiation crosslinked polyolefin  
various, on request

Core colours

## Technical data

|                                                                            |                        |                   |
|----------------------------------------------------------------------------|------------------------|-------------------|
| Temperature range                                                          |                        | -40 up to +125 °C |
| Maximum permitted operating temperatur of the conductor EN50565/IEC 60092. |                        | +90 °C            |
| Short circuit temperatur rating of the conductor EN50565/IEC 60092         |                        | +250 °C           |
| Minimum bending radius                                                     | Outer diameter < 12 mm | 3 × D             |
|                                                                            | Outer diameter > 12 mm | 4 × D             |

### Cross- section 1 - 300 mm<sup>2</sup>

|                                                  |                   |               |
|--------------------------------------------------|-------------------|---------------|
| Rated voltage                                    | U <sub>0</sub> /U | 600/1000 V AC |
| Maximum permitted operating voltage cond.- earth | 720               | V AC          |
| Maximum permitted operating voltage cond.- cond  | U <sub>m</sub>    | 1200 V AC     |
| Maximum permitted operating voltage cond.- earth | V <sub>0</sub>    | 900 V DC      |
| Maximum permitted operating voltage cond.- cond  | 1500              | V DC          |
| Test voltage                                     | 3500(8400)        | V AC (V DC)   |

### Cross- section 0.25 - 0.75 mm<sup>2</sup>

|                                                  |                    |              |
|--------------------------------------------------|--------------------|--------------|
| Rated voltage                                    | U <sub>0</sub> /U  | 300/500 V AC |
| Maximum permitted operating voltage cond.- earth | 320                | V AC         |
| Maximum permitted operating voltage cond.- cond  | U <sub>m</sub> 550 | V AC         |
| Maximum permitted operating voltage cond.- earth | V <sub>0</sub> 410 | V DC         |
| Maximum permitted operating voltage cond.- cond  | 820                | V DC         |
| Test voltage                                     | 2000(5000)         | V AC (V DC)  |

# RADOX® 125 (2<sup>nd</sup> generation)

Flexible single core

Table 1: U<sub>0</sub>/U=300/500V

Extract from our delivery programme

| Cross section           | Conductor                        |                 |                                        | Core        | Weight           | Bending radius |
|-------------------------|----------------------------------|-----------------|----------------------------------------|-------------|------------------|----------------|
| nom.<br>mm <sup>2</sup> | Construction nom.<br>n × mm dia. | Dia. max.<br>mm | R <sub>20</sub> IEC 60228<br>max. Ω/km | Dia.<br>mm  | nom.<br>kg/100 m | min.           |
| 0.25                    | 19 × 0.13                        | 0.61            | 85.9                                   | 1.3 ± 0.10  | 0.4              | 3 × dia.       |
| 0.34                    | 19 × 0.16                        | 0.77            | 52.1                                   | 1.5 ± 0.10  | 0.6              | 3 × dia.       |
| 0.50                    | 19 × 0.18                        | 0.9             | 40.1                                   | 2.0 ± 0.10  | 0.9              | 3 × dia.       |
| 0.75                    | 24 × 0.20                        | 1.13            | 26.7                                   | 2.25 ± 0.10 | 1.2              | 3 × dia.       |

Table 2: U<sub>0</sub>/U=600/1000V

|     |              |       |        |             |       |          |
|-----|--------------|-------|--------|-------------|-------|----------|
| 1.0 | 32 × 0.20    | 1.28  | 20.0   | 2.6 ± 0.10  | 1.6   | 3 × dia. |
| 1.5 | 30 × 0.25    | 1.52  | 13.7   | 2.85 ± 0.10 | 2.1   | 3 × dia. |
| 2.5 | 48 × 0.25    | 2.06  | 8.21   | 3.35 ± 0.10 | 3.0   | 3 × dia. |
| 4.0 | 56 × 0.30    | 2.64  | 5.09   | 3.95 ± 0.10 | 4.6   | 3 × dia. |
| 6.0 | 82 × 0.30    | 3.30  | 3.39   | 4.65 ± 0.15 | 6.5   | 3 × dia. |
| 10  | 78 × 0.40    | 4.25  | 1.95   | 5.6 ± 0.15  | 10.6  | 3 × dia. |
| 16  | 119 × 0.40   | 5.40  | 1.24   | 6.75 ± 0.15 | 15.6  | 3 × dia. |
| 25  | 182 × 0.40   | 6.70  | 0.795  | 8.5 ± 0.2   | 24.2  | 3 × dia. |
| 35  | 266 × 0.40   | 7.90  | 0.565  | 9.7 ± 0.20  | 34.3  | 3 × dia. |
| 50  | 378 × 0.40   | 9.30  | 0.393  | 11.4 ± 0.20 | 46.1  | 3 × dia. |
| 70  | 348 × 0.50   | 11.50 | 0.277  | 13.8 ± 0.25 | 66.2  | 3 × dia. |
| 95  | 456 × 0.50   | 13.00 | 0.210  | 15.3 ± 0.25 | 85.3  | 4 × dia. |
| 120 | 570 × 0.50   | 14.70 | 0.164  | 17.2 ± 0.30 | 108.3 | 4 × dia. |
| 150 | 722 × 0.50   | 16.20 | 0.132  | 19.1 ± 0.30 | 135.3 | 4 × dia. |
| 185 | 874 × 0.50   | 18.00 | 0.108  | 21.3 ± 0.30 | 166.8 | 4 × dia. |
| 240 | 1147 × 0.50  | 21.00 | 0.0817 | 24.5 ± 0.30 | 216.3 | 4 × dia. |
| 300 | 11443 × 0.50 | 23.20 | 1.80   | 27.1 ± 0.4  | 269.2 | 4 × dia. |

Various colours on request.

# RADOX® 125 (2<sup>nd</sup> generation)

Flexible single core

## Fire protection in ships 1- 300 mm<sup>2</sup>

Vertical flame spread of a single cable  
Vertical flame spread of bunched cables  
Smoke density  
Corrosivity of combustion gases  
Amount of halogen acid gas

## Fulfilled

50 < L < 540 mm  
L < 2.5 m  
T > 60 % IEC 61034- 2  
pH > 4.3, C < 10 mS/mm  
HCl+HBr < 0.5 %

## IEC 60092

IEC 60332- 1- 2  
IEC 60332- 3- 22  
  
IEC 60754- 2  
IEC 60754- 1

## Fire protection on railway vehicles, hazard level

Vertical flame spread  
Vertical flame spread, bunched, D < 6mm  
Vertical flame spread, bunched, 6 < D < 12 mm  
Vertical flame spread, bunched, D > 12 mm  
Smoke density  
Toxicity

## HL1 - HL3

50 < L < 540 mm  
L < 1.5 m  
L < 2.5 m  
L < 2.5 m  
T > 70 %  
ITC < 6

## EN 45545

EN 60332- 1- 2  
EN 50305, 9.1.2  
EN 50305, 9.1.1  
EN 60332- 3- 24  
EN 61034- 2  
EN 50305, 9.2

## Fire protection on building products , hazard level

### Cross- section 0.5 - 6 mm<sup>2</sup>

Flame spread

### Eca

H ≤ 425 mm

### EN 13501- 6

EN 60332- 1- 2

### Cross- section 10 - 300 mm<sup>2</sup>

Flame spread  
Flame spread  
Total heat release  
Heat release rate  
Fire growth rate index  
Total smoke production  
Smoke production rate  
Flaming droplets/particles  
Smoke density  
Acidity

### B2ca - s1a, d2, a1

H ≤ 425 mm  
FS ≤ 1.5 m  
THR ≤ 15 MJ  
Peak- HRR ≤ 30 kW  
FIGRA ≤ 150 W/s  
TSP ≤ 50 m<sup>2</sup>  
Peak- SPR ≤ 0.25 m<sup>2</sup>/s  
No requirement  
T ≥ 80 %  
C < 2.5 μS/mm, pH > 4.3

### EN 13501- 6

EN 60332- 1- 2  
EN 50399  
  
  
  
  
  
  
EN 61034- 2  
EN 60754- 2

## Approvals

DNV (Det Norske veritas)  
CPR (Construction Product regulation)

## TAE00003GH

according to EN50575 Eca ≤ 6 mm<sup>2</sup>, B2ca -s1a-d2-a1 > 6 mm<sup>2</sup>