

RADOX® TENUIS-TW

single core

| | | | |
|----------------------|---------------------------|-------------------|-------------------|
| Conductor | according to EN 50306-2 | Voltage rating | 600/1000V AC |
| Number of conductors | 1 | | 900/1500V DC |
| Cross section | 0.5 - 4.0 mm ² | Temperature range | -40 °C to +120 °C |



Composition of core

| | |
|---------------|---|
| 1. Conductor | stranded tin plated copper |
| 2. Insulation | RADOXTI 303 colours: white and greenyellow |

Characteristics and specialities

- Resistance to oil, ozone, weathering
- Broad product range

Application

- Typical applications include carriage wiring, terminal boxes, power supply to various systems and ground connections inside railway rolling stock at fixed or sporadic moving installations.
- Guidelines for selection and the installation are described in the standards EN 50355 and EN 50343.

Standards

| Standard | Fire protection on railway vehicles | |
|-----------------|-------------------------------------|---|
| prEN 45545-2 | | |
| DIN 5510-2 | protection level | 1, 2, 3, 4 |
| NFF 16-101 | class, category | C / F0, int. A1, A2, B / ext. A1, A2, B |
| UNI CEI 11170-3 | | |

For further technical details please refer to our data sheet.

| Cross section mm ² | Conductor | | Core | Conductor resistance | Capacitance | Fire load | Weight | | Item no. |
|----------------------------------|------------------------|-------------------------|-------------|------------------------------|-------------------------------------|--------------|--------------------|-------------------|--------------------------|
| | construction n x mm | d _{nom.} mm | d mm | R ₂₀ max. Ω/km | C _{H₂O} pF/m | nom. kJ/m | copper kg/100 m | cable kg/100 m | standard colour white |
| 0.5 | 19 x 0.18 | 0.90 | 1.43 ± 0.02 | 40.1 | 360 | 33 | 0.45 | 0.58 | 12564379 |
| 0.75 | 19 x 0.23 | 1.10 | 1.63 ± 0.02 | 26.7 | 445 | 37 | 0.69 | 0.84 | 12566838 |
| 1 | 19 x 0.26 | 1.25 | 1.78 ± 0.02 | 20.0 | 478 | 43 | 0.88 | 1.00 | 12561500 |
| 1.5 | 19 x 0.31 | 1.50 | 2.17 ± 0.05 | 13.7 | 460 | 61 | 1.30 | 1.60 | 12564381 |
| 2.5 | 19 x 0.40 | 1.95 | 2.75 ± 0.05 | 8.21 | 513 | 95 | 2.20 | 2.60 | 12564382 |
| 4 | 56 x 0.30 | 2.45 | 3.35 ± 0.05 | 5.09 | 565 | 133 | 3.40 | 4.00 | 12581455 |

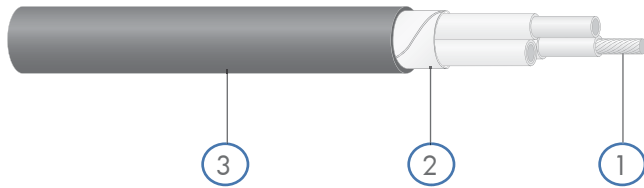
Capacity in water, typical value.

TW = Thin Wall

RADOX® TENUIS-TW/S

multi core

| | | | |
|----------------------|---------------------------|-------------------|-------------------|
| Conductor | according to EN 50306-2 | Voltage rating | 600/1000V AC |
| Number of conductors | 2- ... | | 900/1500V DC |
| Cross section | 0.5 - 4.0 mm ² | Temperature range | -40 °C to +120 °C |



Composition of cable

- | | |
|--------------|--|
| 1. Cores | TENUIS-TW colours: white, numbered and green/yellow further colours on request |
| 2. Separator | tape |
| 3. Sheath | RADOX GWK S, colour: black |

Characteristics and specialities

- Resistance to oil, ozone, weathering
- Broad product range
- Space saving constructions

Application

- Typical applications include carriage wiring, terminal boxes, power supply to various systems and ground connections inside railway rolling stock at fixed or sporadic moving installations.
- Guidelines for selection and the installation are described in the standards EN 50355 and EN 50343.

Standards

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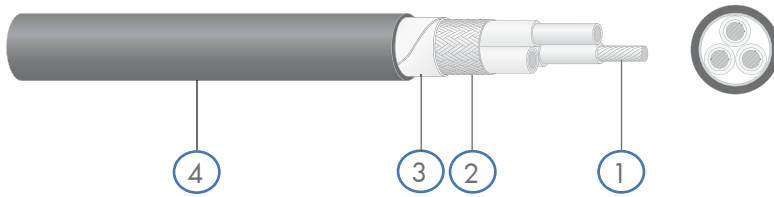
| Construction | Conductor | Core | Cable | Conductor resistance | Fire load | Weight | | Item no. |
|-----------------|-------------------------|-------------------------|----------|------------------------------|--------------|--------------------|-------------------|----------|
| mm ² | d _{nom.} mm | d _{nom.} mm | d mm | R ₂₀ max. Ω/km | nom. kJ/m | copper kg/100 m | cable kg/100 m | |
| 2x0.5 | 0.90 | 1.43 | 4.4±0.2 | 40.1 | 290 | 0.90 | 3.1 | 12568036 |
| 3x0.5 | 0.90 | 1.43 | 4.6±0.2 | 40.1 | 320 | 1.35 | 3.6 | 12568037 |
| 4x0.5 | 0.90 | 1.43 | 5.0±0.2 | 40.1 | 362 | 1.80 | 4.3 | 12568038 |
| 5x0.5 | 0.90 | 1.43 | 5.5±0.2 | 40.1 | 427 | 2.25 | 5.3 | 12566304 |
| 6x0.5 | 0.90 | 1.43 | 6.0±0.2 | 40.1 | 544 | 2.70 | 6.2 | 12568039 |
| 2x2x0.5 | 0.90 | 1.43 | 6.5±0.3 | 40.1 | 595 | 1.80 | 5.8 | 12568040 |
| 4x2x0.5 | 0.90 | 1.43 | 8.7±0.3 | 40.1 | 900 | 3.60 | 9.9 | 12568041 |
| | | | | | | | | |
| 2x0.75 | 1.10 | 1.63 | 4.75±0.3 | 26.7 | 300 | 1.40 | 3.5 | 12568047 |
| 3x0.75 | 1.10 | 1.63 | 5.15±0.3 | 26.7 | 372 | 2.10 | 4.7 | 12568048 |
| 4x0.75 | 1.10 | 1.63 | 5.6±0.3 | 26.7 | 430 | 2.80 | 5.7 | 12568049 |
| 6x0.75 | 1.10 | 1.63 | 6.75±0.3 | 26.7 | 659 | 4.20 | 8.3 | 12568050 |
| 2x2x0.75 | 1.10 | 1.63 | 7.75±0.3 | 26.7 | 833 | 2.80 | 8.1 | 12568051 |
| | | | | | | | | |
| 2x1 | 1.25 | 1.78 | 5.1±0.3 | 20.0 | 377 | 1.65 | 4.5 | 12568052 |
| 3x1 | 1.25 | 1.78 | 5.4±0.3 | 20.0 | 410 | 2.45 | 5.4 | 12568053 |
| 4x1 | 1.25 | 1.78 | 5.8±0.3 | 20.0 | 460 | 3.30 | 6.4 | 12568054 |
| 6x1 | 1.25 | 1.78 | 7.3±0.3 | 20.0 | 887 | 5.00 | 9.8 | 12568055 |
| 10x1 | 1.25 | 1.78 | 8.7±0.3 | 20.0 | 950 | 8.50 | 14.3 | 12581348 |
| 25x1 | 1.25 | 1.78 | 12.8±0.4 | 20.0 | 1890 | 21.20 | 32.4 | 12581349 |
| | | | | | | | | |
| 2x1.5 | 1.50 | 2.17 | 6.0±0.3 | 13.7 | 511 | 2.60 | 6.3 | 12568098 |
| 3x1.5 | 1.50 | 2.17 | 6.3±0.3 | 13.7 | 540 | 3.90 | 7.6 | 12568099 |
| 3 G 1.5 | 1.50 | 2.17 | 6.3±0.3 | 13.7 | 540 | 3.90 | 7.6 | 12582026 |
| 4x1.5 | 1.50 | 2.17 | 6.9±0.3 | 13.7 | 631 | 5.10 | 9.4 | 12568100 |
| 5x1.5 | 1.50 | 2.17 | 7.8±0.3 | 13.7 | 830 | 6.60 | 11.6 | 12581350 |
| 5 G 1.5 | 1.50 | 2.17 | 7.8±0.3 | 13.7 | 830 | 6.60 | 11.6 | 12582027 |
| 6x1.5 | 1.50 | 2.17 | 8.45±0.3 | 13.7 | 1020 | 7.90 | 14.1 | 12582028 |
| 7 G 1.5 | 1.50 | 2.17 | 9.1±0.3 | 13.7 | 1220 | 9.20 | 16.5 | 12582029 |
| 8x1.5 | 1.50 | 2.17 | 10.3±0.4 | 13.7 | 1590 | 10.50 | 20.1 | 12582030 |
| 10x1.5 | 1.50 | 2.17 | 10.6±0.4 | 13.7 | 1370 | 13.10 | 21.6 | 12582031 |
| 18x1.5 | 1.50 | 2.17 | 13.4±0.4 | 13.7 | 2360 | 23.70 | 37.4 | 12582032 |
| 25 G 1.5 | 1.50 | 2.17 | 15.5±0.5 | 13.7 | 3010 | 33.10 | 49.4 | 12582033 |
| | | | | | | | | |
| 2x2.5 | 1.95 | 2.75 | 7.3±0.3 | 8.21 | 745 | 4.30 | 9.8 | 12568101 |
| 3x2.5 | 1.95 | 2.75 | 7.8±0.3 | 8.21 | 840 | 6.60 | 12.2 | 12582034 |
| 3 G 2.5 | 1.95 | 2.75 | 7.8±0.3 | 8.21 | 840 | 6.60 | 12.2 | 12582035 |
| 4x2.5 | 1.95 | 2.75 | 8.7±0.3 | 8.21 | 1000 | 8.60 | 15.2 | 12566306 |
| 5x2.5 | 1.95 | 2.75 | 9.4±0.3 | 8.21 | 1200 | 10.90 | 18.1 | 12581346 |
| 6x2.5 | 1.95 | 2.75 | 10.6±0.4 | 8.21 | 1590 | 13.10 | 22.3 | 12581347 |

S = RADOX GKW S sheath
 G = (earth) = greenyellow

RADOX® TENUIS-TW/S EMC

multi core screened

| | | | |
|----------------------|---------------------------|-------------------|-------------------|
| Conductor | according to EN 50306-2 | Voltage rating | 600/1000V AC |
| Number of conductors | 2 - ... | | 900/1500V DC |
| Cross section | 0.5 - 4.0 mm ² | Temperature range | -40 °C to +120 °C |



Composition of cable

| | |
|---------------|--|
| 1. Cores | TENUIS-TW colour: white, numbered and greenyellow further colours on request |
| 2. EMC screen | tin plated copper braid |
| 3. Separator | tape |
| 4. Sheath | RADOX GWK S, colour: black |

Characteristics and specialities

- Resistance to oil, ozone, weathering
- High screening effectiveness
- Broad product range
- Space saving constructions

Application

- Typical applications include carriage wiring, terminal boxes, power supply to various systems and ground connections inside railway rolling stock at fixed or sporadic moving installations.
- Guidelines for selection and the installation are described in the standards EN 50355 and EN 50343.

Standards

| Standard | Fire protection on railway vehicles | |
|-----------------|-------------------------------------|---|
| prEN 45545-2 | | |
| DIN 5510-2 | protection level | 1, 2, 3, 4 |
| NF F 16-101 | class, category | C / F0, int. A1, A2, B / ext. A1, A2, B |
| UNI CEI 11170-3 | | |

For further technical details please refer to our data sheet.

RADOX® TENUIS-TW/S EMC

multi core screened

| Construction | Conductor | Core | Cable | Conductor resistance | Fire load | Weight | | Item no. |
|-----------------|-------------------------|-------------------------|------------|------------------------------|--------------|--------------------|-------------------|----------|
| mm ² | d _{nom.} mm | d _{nom.} mm | d mm | R ₂₀ max. Ω/km | nom. kJ/m | copper kg/100 m | cable kg/100 m | |
| 2 x 0.5 | 0.90 | 1.43 | 4.8 ± 0.3 | 40.1 | 323 | 1.8 | 4.2 | 12568117 |
| 6 x 0.5 | 0.90 | 1.43 | 6.5 ± 0.3 | 40.1 | 526 | 4.8 | 8.2 | 12568120 |
| 15 x 0.5 | 0.90 | 1.43 | 9.0 ± 0.3 | 40.1 | 1226 | 9.6 | 16.7 | 12582036 |
| 3 x 2 x 0.5 | 0.90 | 1.43 | 8.1 ± 0.3 | 40.1 | 765 | 4.8 | 9.8 | 12581451 |
| 12 x 2 x 0.5 | 0.90 | 1.43 | 13.0 ± 0.3 | 40.1 | 1594 | 20.6 | 27.6 | 12581358 |
| | | | | | | | | |
| 2 x 0.75 | 1.10 | 1.63 | 5.0 ± 0.3 | 26.7 | 345 | 2.6 | 4.8 | 12568514 |
| 4 x 0.75 | 1.10 | 1.63 | 6.0 ± 0.3 | 26.7 | 441 | 4.8 | 7.2 | 12568516 |
| 6 x 0.75 | 1.10 | 1.63 | 7.2 ± 0.3 | 26.7 | 675 | 5.9 | 10.3 | 12568517 |
| 10 x 0.75 | 1.10 | 1.63 | 8.7 ± 0.3 | 26.7 | 896 | 9.6 | 15.2 | 12582046 |
| 18 x 0.75 | 1.10 | 1.63 | 11.0 ± 0.4 | 26.7 | 1397 | 16.2 | 24.4 | 12582048 |
| 3 x 2 x 0.75 | 1.10 | 1.63 | 9.0 ± 0.3 | 26.7 | 978 | 6.7 | 12.7 | 12581579 |
| | | | | | | | | |
| 2 x 1 | 1.25 | 1.78 | 5.6 ± 0.3 | 20.0 | 430 | 2.7 | 6.0 | 12568162 |
| 4 x 1 | 1.25 | 1.78 | 6.5 ± 0.3 | 20.0 | 527 | 4.9 | 8.8 | 12568164 |
| 8 x 1 | 1.25 | 1.78 | 8.9 ± 0.3 | 20.0 | 1120 | 10.8 | 17.1 | 12581449 |
| 25 x 1 | 1.25 | 1.78 | 13.8 ± 0.4 | 20.0 | 2110 | 27.0 | 39.2 | 12582051 |
| 2 x 2 x 1 | 1.25 | 1.78 | 8.3 ± 0.3 | 20.0 | 877 | 5.5 | 11.7 | 12581357 |
| | | | | | | | | |
| 3 x 1.5 | 1.50 | 2.17 | 6.8 ± 0.3 | 13.7 | 580 | 5.5 | 9.5 | 12568173 |
| 6 x 1.5 | 1.50 | 2.17 | 9.0 ± 0.3 | 13.7 | 1020 | 12.0 | 16.8 | 12581465 |
| 18 x 1.5 | 1.50 | 2.17 | 14.4 ± 0.4 | 13.7 | 3490 | 30.5 | 45.2 | 12582056 |
| | | | | | | | | |
| 2 x 2.5 | 1.95 | 2.75 | 7.8 ± 0.3 | 8.21 | 806 | 6.3 | 12.2 | 12568175 |
| 6 x 2.5 | 1.95 | 2.75 | 11.4 ± 0.4 | 8.21 | 1650 | 16.5 | 26.8 | 12582059 |

S = RADOX GWK S sheath

EMC = Electromagnetic Compatibility