



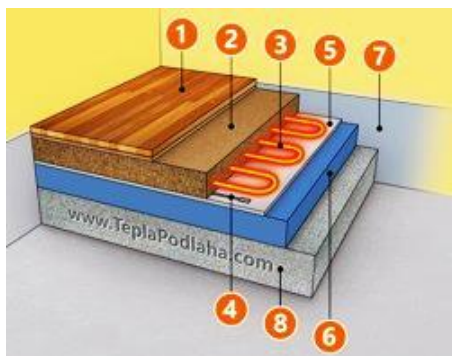
## Technical parameters of the heating cable Line™ T20

Heating cable type:	<b>double-core wire with braiding</b>
Operation voltage:	<b>230 V / 50 Hz / AC</b>
Output:	<b>20 W/rmt</b>
Coverage:	<b>IP67</b>
Heating cable length:	<b>10 to 180 m</b>
Heating cable diameter:	<b>5 mm</b>
Cold lead - supply length:	<b>2.5 m</b>
Min. installation temperature:	<b>5 °C</b>
Minimum bending radius:	<b>60 mm</b>
<b>Declaration of conformity:</b>	<b>C E</b>

issued in accordance with §13 art.1 of Act No. 264/99 Coll. and Government Regulation No. 194/2005 Coll. as amended by Government Regulation No. 318/2007 Coll. and No. 308/2004 Coll. as amended by Government Regulation No. 449/2007 Coll. The name: Line™T20 electric heating cables. Conformity assessment has been performed in accordance with: Government Regulation No. 194/2005 Coll. as amended by Government Regulation No. 318/2007 Coll. on electromagnetic compatibility of devices and Government Regulation No. 308/2004 Coll. as amended by Government Regulation No. 449/2007 Coll. on electric equipment. In conformity assessment regarding the product, there have been the following EU directives used as well as standards followed: EN 60730-1:2011, EN 60730-2-9:2010, EN 61000-3-2:2006+A2:2009, EN 61000-3-3:2008, the Low Voltage Directive 2006/95/EC, Annex 4, the EMC Directive 2004/108/EC, Annex II.

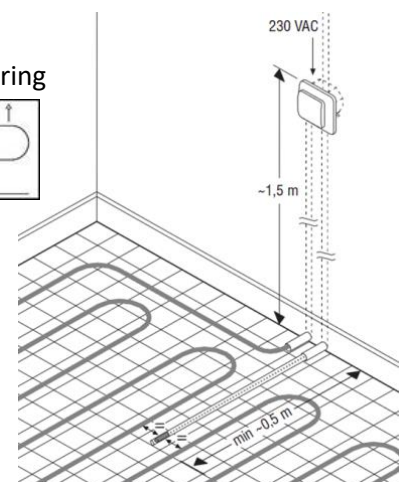
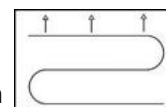
### Before you start installing the heating cable:

- The subfloor under the heating cable must be clean, without sharp edges and impurities.
- Heating cable must not be shortened, lengthened, mutually contacted or crossed, or touched the insulation. It must not be under excessive tension in the connection spot of the heating cable and power lead. It is designed for indoor applications.
- Bending radius of the heating cable must not be smaller than 30 mm. Min. gaps between the heating cable runs - 60 mm. Maximum distances between the cables with the output 20 W/m = 20 to 25 cm. Maximum installed capacity = 200 W/m<sup>2</sup>.
- Connection between the heating cable and power lead as well as the terminal must be placed in the floor.
- Do not install the heating cable at the ambient temperature below 5 °C.
- Operate the heating cable only with suitable thermostat with floor sensor set to max. 45°C.
- In order to provide electrical safety, it is appropriate to use a 30 mA residual current circuit breaker. Follow the applicable standards.



Floor composition      Mark - suitable flooring

- 1 - flooring
- 2 - concrete/anhydrite max. 5 cm
- 3 - heating cable Line™ T20
- 4 - floor sensor
- 5 - aluminium foil with separate layer
- 6 - polystyrene about 5 – 10 cm
- 7 - side dilations about 1 cm
- 8 - floor concrete



### Installation instructions

- Measure the room and draw an installation plan of the heating cable, calculate correct spacing (cm) according to the formula: floor area to be heated (m<sup>2</sup>) x 100 / length (m) of the cable to be installed.
- Within the fitting, do not include built-up areas (e.g. bathtubs, shower niches ...) to prevent the cable overheating.
- Slide the power lead through the conduit into the box for thermostat in such a way that the connection will stay in the floor.

4. Place the cable on the floor with the correct spacing according to the installation plan. Keep placing the heating cable on the floor area in such a way that you will make a turn at the end of the heated area and continue in the opposite direction. Fix the cable by recommended fixing elements. During installation do not step on the heating cable. Avoid sharp objects and careless pouring of concrete or anhydrite. Make sure there are no air gaps in the concrete or anhydrite. The heating cable must not be laid across the expansion joints. Connection of the heating cable and power lead must be laid in the floor and it must not be led through the conduit.
5. Insert the temperature sensor into the pipe - gooseneck in such a manner that it will be placed evenly between the heating cable loops and placed in the heating area 50 cm away from the wall. Seal the end of the conduit for sensor.
6. After the heating cable is laid, measure and check its resistance and then insulation condition using the voltage >1000 VDC. Max. 2500 VDC. Insulation resistance value must be > 50 MΩ. The resistance must be within the tolerance. **Write down** the measured values into the warranty coupon.
7. Pour anhydrite or concrete over the heating cable. The concrete must be enhanced by plasticizer.
8. After curing, measure and check the resistance and insulation condition again. **Write down** the values into the warranty coupon.
9. Insert the temperature floor sensor only on the end of the conduit and connect the thermostat according to the wiring diagram.
10. You can put the heating cable into operation only after complete drying out - maturing of the construction substances used.
11. Lay the flooring material; follow the instructions of its manufacturer. The flooring suitable for floor heating is marked either by words or marks, see the figure above.

### Extended 22 year warranty – Line™ T20 heating cables

The warranty is valid only with correctly delivered documents:

1. When the Warranty coupon is correctly filled in, see below;
2. Document on purchase: invoice or purchase receipt;
3. The manufacturer duty will be to repair or deliver a new product free of charge to the customer without any other extra costs related to the repair or the unit exchange.

The warranty is null and void, if the installation was not performed by professionally competent person or error caused by incorrect design, damage, incorrect installation or any other later damage. If we are asked to repair or replace such a product, all the costs will be charged.

### Warranty coupon

Room: .....

Room No.: .....

Name of the facility: .....

Heating cable Line™ T20	Output (W)	Length (m)	Resistance(Ω) @ 20 °C +10/-5 %	Resistance(Ω) before concrete application	Insulation resistance(MΩ) before concrete application	Resistance(Ω) after concrete application	Insulation resistance(MΩ) after concrete application
Line™ T20	200	10	264.50				
Line™ T20	300	15	176.33				
Line™ T20	400	20	132.25				
Line™ T20	500	25	105.80				
Line™ T20	600	30	88.17				
Line™ T20	700	35	75.57				
Line™ T20	850	42.5	62.24				
Line™ T20	1,000	50	52.90				
Line™ T20	1,200	60	44.08				
Line™ T20	1,400	70	37.79				
Line™ T20	1,600	80	33.06				
Line™ T20	1,800	90	29.39				
Line™ T20	2,000	100	26.45				
Line™ T20	2,200	110	24.05				
Line™ T20	2,400	120	22.04				
Line™ T20	2,600	130	20.35				
Line™ T20	3,200	160	16.53				

Date of sale / Stamp:	Installation date:	Stamp:
Electrician / Distributor:	Name and Surname, tel. No., e-mail:	Signature: