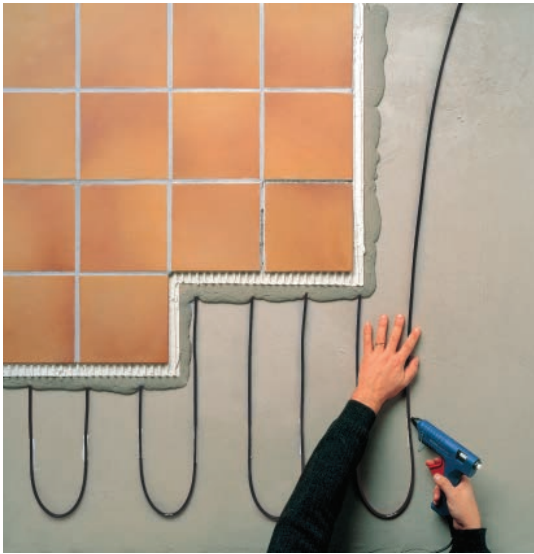


Floor heating cable

DESCRIPTION



Raychem T2Black-20 is a floor heating cable with constant power output of 20 W/m. It is a pre-terminated, dual conductor and twisted heater with a 2.6 m cold lead attached at one end.

The heating cable should be embedded in a filler layer of approximately 30-50mm.

T2Black is the ideal floor heating system for installation in newly constructed buildings or for renovation, and for example in conservatories or cold rooms (refrigeration rooms).

T2Black-20 kits exist in variants containing a digital electronic thermostat (NRG-DM) and variants without thermostat. All T2Black cables are delivered pre-terminated and on a spool for ease of installation. They are packed in a robust and handy installer friendly box containing glue sticks for easy fixing to the subfloor and a conduit in which to install the sensor.



12 years Total Care Warranty covers all our under floor heating products when installed by an authorized electrical installer. 20 years Total Care Warranty is valid if the installation is carried out by a Certified PRO installer. Read more about Certified PRO and our favourable warranties and conditions at www.chemelex.com.

ADVANTAGES

The design phase

Easy design:

- one cold lead connection due to dual wire cable design
- different outputs per m² can be obtained by different spacing (min spacing is 120 mm)
- cable very flexibility, this cable is particularly suitable to adapt to all room shapes

Compatible with all non combustible and stable subfloors e.g. concrete, anhydrite, plaster, ceramic underfloor.

Following floorings can be applied: Tiles, Marble, Stones
Max. 30 mm thickness
 λ -value 1,0 W/mK

The installation phase

Due to the dual conductor cable T2Black-20 has only one cold lead connection which enables easy lay-out and installation.

Easy to adapt to special room shapes or obstacles. Spacing can be varied to a minimum of 120 mm.

The twisted design and the size of the cable make the T2Black-20 particularly easy to lay in odd shaped rooms.

The application

Extra low energy consumption when used together with the Raychem smart and Eco-Design compatible thermostats.

No measurable electro-magnetic fields due to the dual conductor and twisting of the heating cable.

Long life and maintenance free.

TECHNICAL DATA

Nominal power	20 W/m
Voltage	230 V
Max. exposure temperature	+90°C
Min. installation temperature	+5°C
Length of cold lead cable	2.6 m
Dimensions approx	4 mm diameter
Min. cable spacing	120 mm
Min. bending radius	30 mm
RCD	30 mA
Construction	PVC-outer jacket - Fluoropolymer resistance wires
Certificates	CE-mark



RELATED RAYCHEM PRODUCTS

NRG-DM	1244-015152	Intuitive electronic and Eco-Design compliant thermostat Week Timer / Predictive Heating
GREEN LEAF	1244-013810	Attractive electronic and Eco-Design compliant thermostat Week Timer / Open Window
SENZ	1244-017777	Touchscreen and Eco-Design compliant thermostat combining aesthetic design and ease of use for more comfort from your underfloor heating Week Timer / Predictive Heating / Open Window
SENZ WIFI	1244-017778	WiFi enabled touchscreen and Eco-Design compliant thermostat combining App enabled remote control, aesthetic design and ease of use for maximum comfort from your underfloor heating Week Timer / Predictive Heating / Open Window / Distance Control
Gluestick 10pc	6012-8949540	10 pcs. of hot glue rods in 1 bag
Gluestick 70pc	503052-000	70 pcs. of hot glue rods in 1 box
Sensor tube kit	6012-8949541	2,5m flexible plastic conduit for installation of the floor sensor
T2Black repair kit	1244-008869	Repair kit for T2Black
Metal mesh 10m	476660-000	Galvanized metal mesh of 10 m
Metal mesh 25m	726604-000	Galvanized metal mesh of 25 m

DESIGN TABLE

T2Black-20 heating cables are available in lengths from 12 m till 109 m in complete packs including all needed accessories to install the cable and spooled on an inventive and easy to unroll spooling system. Packs including the NRG-DM thermostat and packs without thermostats are available.

T2Black-20						Area m ²			
Product name	Without thermostat	With NRG-DM thermostat	Output (W)	Length (m)	Resistance Range (Ω)	80W/m ²	100W/m ²	125W/m ²	150W/m ²
T2Black 20-12M	SZ18300325	SZ18300334	215	12	233.7-270.7	2.7	2.2	1.7	1.4
T2Black 20-16M	SZ18300326	SZ18300335	310	16	162.1-187.7	3.9	3.1	2.5	2.1
T2Black 20-21M	SZ18300327	SZ18300336	410	21	122.6-141.9	5.1	4.1	3.3	2.7
T2Black 20-28M	SZ18300328	SZ18300337	550	28	91.4-105.8	6.9	5.5	4.4	3.7
T2Black 20-43M	SZ18300329	SZ18300338	850	43	59.1-68.5	10.6	8.5	6.8	5.7
T2Black 20-57M	SZ18300330	SZ18300339	1150	57	43.7-50.6	14.4	11.5	9.2	7.7
T2Black 20-74M	SZ18300331	SZ18300340	1490	74	33.7-39.1	18.6	14.9	11.9	9.9
T2Black 20-82M	SZ18300332	SZ18300341	1625	82	30.9-35.8	20.3	16.3	13.0	10.8
T2Black 20-109M	SZ18300333	SZ18300342	2200	109	22.8-26.5	27.5	22.0	17.6	14.7
Calculate heating cable spacing in (mm):						250 mm	200 mm	160 mm	135 mm

SUBFLOOR PREPARATION

The subfloor should be clean, stable and rigid, without cracks or adhesion-reducing substances. Large cracks in the subfloor should be filled prior to installation.

Uneven surfaces will need to be levelled prior to installation. With cement plaster and anhydrite plaster, one should ensure that the substance has dried sufficiently according to the applicable norms. Anhydrite plaster should be smoothed and dust free. With quickly solidifying plaster, one should follow the suppliers instructions.

The heating cable should not be installed under bath tubs, shower cabins, surface covering furniture, etc. The heating cable should not be installed where holes will be drilled in the floor.

INSTALLATION INSTRUCTIONS

The T2Black-20 cold lead is inserted in a flexible tubing and connected to the connection box. T2Black-20 shall always be controlled by an electric underfloor heating thermostat with external floor sensor and compliant with the EcoDesign directive (like the NRG-DM, GREEN LEAF, SENZ or SENZ-WIFI). The thermostat sensor, which is also protected in a flexible tubing (3m included in T2Black pack), is positioned centrally between two heating cable runs and as close as possible to the final floor covering.

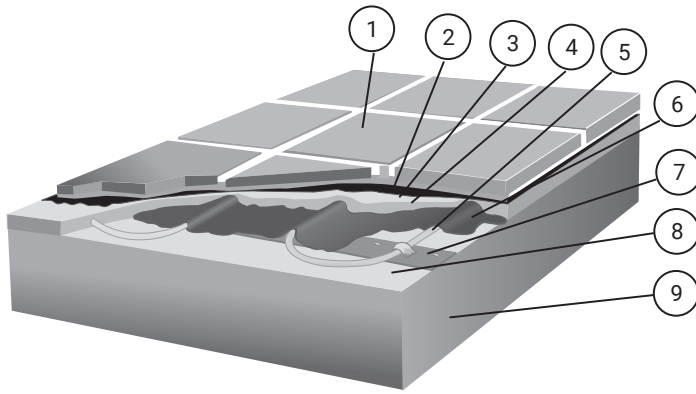
T2Black-20 can only be installed under tiles and natural stone. The cable shall be embedded in a screed of typically 30-50mm.

TYPICAL INSTALLATION HEIGHTS

Height*	T2Black-20
1-15mm	-
15-30mm	☺
30-50mm	☺☺☺

* floor covering not included

FLOOR CONSTRUCTION SCHEMATICS



1. Top Flooring Tiles
2. Tile adhesive
3. Watertight barrier (when applicable)
4. Fine/coarse casting of concrete 30-50 mm
5. Heating cable
6. Adhesive primer
7. Fixing strip, metal grid
8. Cement floor structure
9. Thermal insulation

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