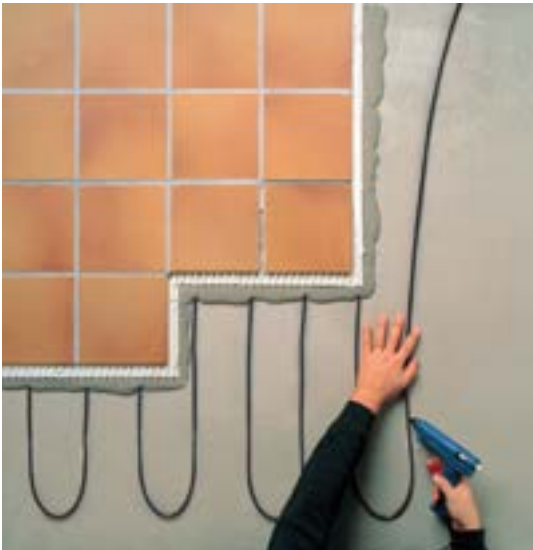


T2Black-12 Floor Heating Cable

COMFORT YOU DESERVE



DESCRIPTION

nVent RAYCHEM T2Black-12 is a floor heating cable with constant power output of 12 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 10-15mm.

T2Black-12 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).

The T2Black-12 cable is particularly well suited to be used in combination with anti-fracture membranes.

T2Black-12 kits exist in variants containing a digital electronic thermostat (NRG-DM) and variants without thermostat. All T2Black-12 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 raychemfloorheating.co.uk.

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 50 mm)
- cable very flexibility, this cable is particularly suitable to adapt to all room shapes

Compatible with all stable subfloors e.g. concrete, anhydrite, asphalt, plaster, ceramic underfloor, wooden subfloors.

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

The installation phase

Due to the dual conductor cable T2Black-12 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 50 mm.

The twisted design and the size of the cable make the T2Black-12 particularly suitable for most anti-fracture membranes available on the market.

The application

Extra low energy consumption when used together with the nVent 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	12 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	50 mm
Min. bending radius	30 mm
RCD	30 mA
Construction	PVC-outer jacket - Fluoropolymer resistance wires
Certificates	CE-mark



RELATED NVENT 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-12 heating cables are available in lengths from 14.5 m till 98 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-12						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 12-14.5M	SZ18300317	SZ18300309	180	14,5	282.3-326.9	2.2	1.8	1.4	1.2
T2Black 12-20.0M	SZ18300318	SZ18300310	250	20	201.0-232.8	3.1	2.5	2.0	1.7
T2Black 12-26.5M	SZ18300319	SZ18300311	325	26,5	154.6-179.0	4.1	3.3	2.6	2.2
T2Black 12-35.5M	SZ18300320	SZ18300312	435	35,5	116.1-134.4	5.4	4.3	3.5	2.9
T2Black 12-46.0M	SZ18300321	SZ18300313	565	46	88.8-102.8	7.1	5.7	4.5	3.8
T2Black 12-55.0M	SZ18300322	SZ18300314	665	55	75.6-87.5	8.3	6.7	5.3	4.4
T2Black 12-73.0M	SZ18300323	SZ18300315	895	73	56.2-65.1	11.2	8.9	7.2	6.0
T2Black 12-98.0M	SZ18300324	SZ18300316	1210	98	41.5-48.1	15.1	12.1	9.7	8.1
Calculate heating cable spacing in (mm):						150 mm	120 mm	100 mm	80 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-12 cold lead is inserted in a flexible tubing and connected to the connection box. T2Black-12 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-12 can be used under tiles and natural stone. The cable can even be embedded directly in the tile glue (in that case make sure it is embedded in at least 6mm of tile glue), or installed directly in anti-fracture membranes and/or embedded in levelling compound or in a screed.

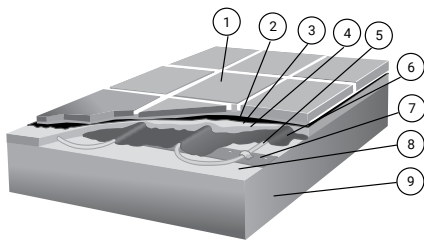
T2Black-12 can be installed under parquet floors, engineered wooden floors or laminate floors. It then needs to be embedded in a minimum of 15mm of filler material, controlled by a thermostat with external floor sensor set to a maximum of 27°C and the cable spacing should not be closer than 120mm per cable run (resulting in a power output of 100W/m²).

TYPICAL INSTALLATION HEIGHTS

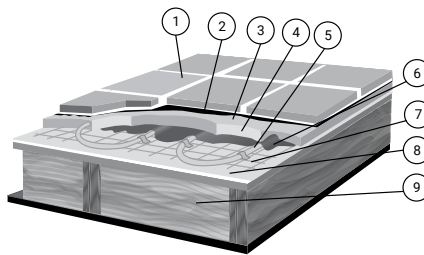
Height*	T2Black-12
1-15mm	
15-30mm	
30-50mm	

* floor covering not included

FLOOR CONSTRUCTION SCHEMATICS



- 1 Top Flooring Tiles/plastic matting/wood or laminate
- 2 Tile adhesive (when applicable)
- 3 Watertight barrier (when applicable)
- 4 Fine/coarse casting of concrete 10-15 mm
- 5 Heating cable
- 6 Adhesive primer
- 7 Fixing strip, metal grid or antifracture membrane (installed in accordance with manufacturers instructions)
- 8 Cement floor structure
- 9 Thermal insulation



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- 2 Tile adhesive (when applicable)
- 3 Watertight barrier (when applicable)
- 4 Fine/coarse casting of concrete 10-15 mm
- 5 Heating cable
- 6 Adhesive primer
- 7 Fixing strip, metal grid or antifracture membrane (installed in accordance with manufacturers instructions)
- 8 Load-bearing subfloor
- 9 Thermal insulation

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