

48 - Electrical Underfloor/Ramp Heating

Raychem

Raychem Innovative Solutions for Building Regulation Compliance

The range includes:

- T2Red** - The *energy efficient*, self regulating heating cable system.
- T2Reflecta** - Insulating heat reflector system.
- T2QuickNet** - The robust, ultra thin, easy to install, under tile heating mat solution.
- T2Blue** - The flexible, robust in-screed solution.

CeraPro - The ultra thin (3mm), robust and reliable pre-terminated heating cable solution for installation directly into tile adhesive, under tiled floors.

CPD Accredited Seminars from our Experienced Team

Tyco Thermal Controls are a CIBSE accredited training seminar provider as part of the "Continuing Professional Development" scheme.



Please use the seminar request feature on the Building Design website or contact us on the number or e-mail below.

Raychem Free Design Services

Bespoke design services:

- 2-D & 3-D installation plans
- Detailed optimised bill of materials
- Project information including power output for heated areas

Slabheat Services for Building Regulation Compliance

An integral part of the new building regulation compliance guidelines is the requirement of thermal insulation in floors when implementing under floor heating systems. Raychem's "Slabheat" modelling software can demonstrate compliance regarding surface heat output against downward heat loss.

Raychem Installation Services

A total quality product and services package should be a requirement of every floor heating supplier. Raychem trained "CertifiedPro" installers are available to ensure the quality designs and products are correctly installed and commissioned to the highest standards.



Raychem Track History

Our floor heating systems are installed at:

- Kempinski Duke's Palace Hotel, Bruggs, Belgium (95 Bathrooms - T2Quicknet)
- Hilton Hotels, various locations (all bathrooms - T2Reflecta & Quicknet)
- Heathrow Airport, London (T2Red & T2Quicknet)
- Charters Development, Ascot (Residential) - 30km (T2Red)
- St. Davids II, Cardiff (Hayes Apartment Development) - 7500m² (T2Reflecta)

Raychem Ice & Snow Melting System

Remember the chaos of last winter? Severe weather still happens!

Ice and snow on paths, loading bays, driveways, ramps, stairs and other access ways, cause accidents, delay, and significant financial loss to businesses. To help prevent this significant liability, Raychem provides a complete range of energy efficient ground heating solutions to prevent snow and ice formation.

For a copy of the new Ramp and surface heating technical handbook, please contact us and request your free copy of CDE-1540.

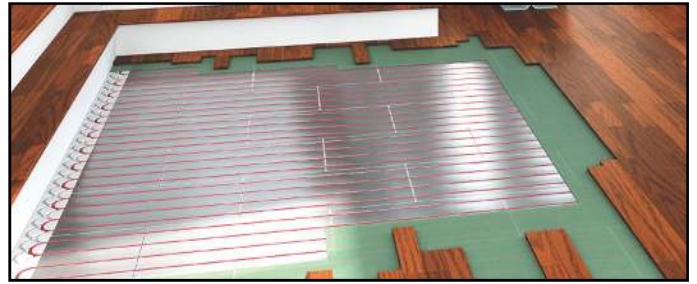
System modelling based on actual slab profile is also available upon request. Ask for more information about our "Slabheat" software services.

Visit www.ttc-academy.com for product and application news, product data and online CIBSE approved learning tools.

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CeraPro with Isolecta Example (150W/m²)

DESIGN INFORMATION					
Design Data			Upper Surface Boundary Condition		
Heating Cable:	Constant Wattage (11.0 W/m)		Boundary Condition:	Indoors	
Voltage:	240 V		Ambient Temperature:	17.0 °C	
Installation:	Embedded in Slab		Heat Transfer Coefficient:	9.255 W/m ² ·°C	
Heater Spacing:	73 mm		Lower Surface Boundary Condition		
Heater Depth:	11 mm		Boundary Condition:	Indoors	
Power Multiplier:	1.0		Ambient Temperature:	14.0 °C	
Analysis Type:	Fixed Heater Spacing (Steady State)		Heat Transfer Coefficient:	6.132 W/m ² ·°C	
Slab Materials					
Material	Thickness (mm)	Layer Division	Conductivity (W/m·°C)	Density (kg/m ³)	Specific Heat (kJ/kg·°C)
Tile, Ceramic	8	Auto	1.514	2274.556	0.796
Mortar	3	Auto	1.161	1713.926	0.796
Urethane foam board	10	Auto	0.020	33.638	1.047
Plywood	20	Auto	0.115	544.612	1.214
Styrofoam (EPS)	30	Auto	0.029	35.240	1.130

