



SPECIFICATION GUIDELINE CDE-0994

Electrical underfloor comfort heating: T2QuickNet-Plus heating mat system

Purpose :

The purpose of the underfloor heating system is to provide a comfortable (18-27°C) floor temperature.

Specification :

The Product shall be supplied and delivered by:
Tyco Thermal Controls (UK) Ltd.
3 Rutherford Road
Stephenson Industrial Estate
Washington, Tyne & Wear
NE37 3HX
Contact no: 0800 969 013
E-mail: Salesuk@tycothermal.com

All underfloor trace heating cables shall be in ready-to-fit kitted mat format as manufactured by Tyco Thermal Controls and known as T2QuickNet Plus.

The Heating Cable shall be capable of demonstrating a lifetime in excess of 15 years and have a warranty of at least 12 years.

The heating mat shall be PVC free.

The heating cable shall have a two wire constant wattage cable construction for the purpose of reducing electro-magnetic field generation. Including the matting, the overall thickness of the floor heating solution shall be no more than 3mm. The heating element should be fixed within the mat and held in place by the matting itself and not by fixing tape under which air gaps (Hotspots) may occur.

The heating mat should be of the self adhesive type for ease of installation.

The underfloor trace heating system shall be installed, tested and commissioned strictly in accordance with the manufacturer's instructions. The recommendations of the floor manufacturer shall also be observed. Floor manufacturer best practices are available from Tyco Thermal Controls, upon request.

All underfloor heating mats should be capable of power output of 160Watts/m² and a maximum heating area as per the following:

Circuit Breaker (Type C)	Maximum heating cable length per electrical circuit (metres)
10 Amp	28metres (14m ²)
13 Amp	36metres (18m ²)

The IEE guidelines are to be observed. An earth leakage current protection switch (30mA, 100ms) is required.

The heating mat will be pre-terminated by the manufacturer.

Product, technical, and performance requirements:

Floor heating mat system:

- Product must be capable of 160W/m² to ensure fast heat up.
- Product must be of a twin wire construction to enable negligible electro-magnetic field generation.
- Product must be free of PVC.
- Product must be braided for electrical circuit protection.
- The heating element/cable must be held in place by the mat itself and not by adhesive tape under which hotspots may occur.

Monitoring and Control :

All heating circuits shall be controlled and monitored via the Raychem range of Thermostats. The floor heating system should be controlled by one of the following methods depending on project requirements:

- a) Floor or room temperature sensing digital thermostat with boost function, known as **Raychem TA Thermostat**.
- b) Programmable digital floor temperature sensing thermostat with integrated timer and boost function, known as **Raychem TC Control**.

Electrical connection of the underfloor heating circuit shall be by a qualified electrician.

The manufacturer shall provide a 12 year product warranty for the under floor heating system provided all product and components are that of the manufacturer.