

Specification: Raychem® QuickNet™ Floor Warming System

1 Product Description

General

The Raychem QuickNet floor warming system is designed for comfort heating of ceramic and porcelain tile or natural stone floors. The preassembled mats can be installed over wood, with or without backerboard, or on concrete. They may also be installed over floor isolation membranes like Dural Durabase CI. The mat is then embedded in mortar and covered with tile or natural stone.

The Heating Mat

The heating mat shall consist of a heating cable woven into an adhesive-backed fiberglass mesh. The heating mat shall be tested by the manufacturer for continuity, resistance, and dielectric integrity before leaving the factory. All heating mats furnished under this section shall be supplied by a single manufacturer. The heating mat shall be certified to U.S. and Canadian standards for this application. The mat is rated to produce 12 watts per square foot (129 watts per square meter) at 120 or 240 volts. The heating cable shall incorporate two copper alloy heating elements encapsulated in an inner fluoropolymer layer. This fluoropolymer insulation shall be surrounded by an aluminum/Mylar foil to provide a ground path with 100% coverage. A fluoropolymer outer jacket shall be extruded over the ground foil for abrasion and chemical resistance. End termination splice shall have a diameter of 3/8" and shall be environmentally sealed. Power leads shall be of sufficient length to reach junction boxes as shown on detailed drawings. Power leads shall be a minimum of 10' long, and with wire colors compliant with North America electrical practices.

2 Control/Operation

The floor warming system shall include a Raychem QuickStat™ electronic thermostat. The thermostat shall incorporate a thermistor-type floor sensor to monitor floor temperatures, an integral 5mA Class A Ground Fault Circuit Interrupter (GFCI), a temperature set-back option to reduce energy consumption, and a digital readout.

3 Code Listings/Specifications

The heating mat shall be certified to U.S. and Canadian standards. The heating mat shall be capable of being installed in one step with the mortar bond coat and tile. The installation and testing shall result in a rating of "moderate commercial" for normal (non-vehicular) residential, commercial and light institutional use.

4 Product Warranty

The heating mat shall include a 15 year limited warranty extension provided that the system is installed in accordance with the QuickNet System Installation Manual (H57704). This document defines the commissioning tests to be performed and recorded before the heating mat is embedded in mortar, after the heating mat is embedded in mortar and after the tile or natural stone is set.

5 Product Selection

Catalog Number	Heated Area ft ² (m ²)	Mat Dimensions	Output Watts
120 V QuickNet with thermostat			
QUICKNET-010-1	10 (0.9)	20 in x 6.2 ft	120
QUICKNET-020-1	20 (1.8)	20 in x 12.1 ft	240
QUICKNET-030-1	30 (2.7)	20 in x 18.4 ft	360
QUICKNET-040-1	40 (3.7)	20 in x 24.3 ft	480
QUICKNET-050-1	50 (4.6)	20 in x 30.5 ft	600
QUICKNET-060-1	60 (5.6)	20 in x 36.4 ft	720
QUICKNET-070-1	70 (6.5)	20 in x 42.7 ft	840
QUICKNET-080-1	80 (7.4)	20 in x 48.9 ft	960
QUICKNET-090-1	90 (8.4)	20 in x 55.0 ft	1,080
QUICKNET-100-1	100 (9.3)	20 in x 61.0 ft	1,200
240 V QuickNet with thermostat			
QUICKNET-050-2	50 (4.6)	20 in x 30.5 ft	600
QUICKNET-060-2	60 (5.6)	20 in x 36.4 ft	720
QUICKNET-080-2	80 (7.4)	20 in x 48.9 ft	960
QUICKNET-100-2	100 (9.3)	20 in x 61.0 ft	1,200
240 V Extension Kit without thermostat (add on to 240 V QuickNet to accommodate floors over 100 ft ²)			
QUICKNET-050X-2	50 (4.6)	20 in x 30.5 ft	600
QUICKNET-060X-2	60 (5.6)	20 in x 36.4 ft	720
QUICKNET-080X-2	80 (7.4)	20 in x 48.9 ft	960
QUICKNET-100X-2	100 (9.3)	20 in x 61.0 ft	1,200

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