For Residential and Commercial Applications

Job Name _____ Contractor _____

Job Location _____ Approval _____

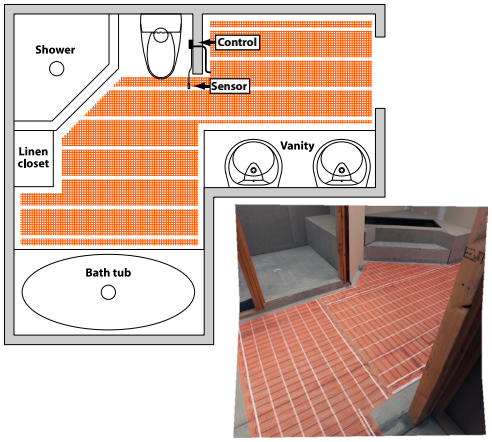
Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

CustomTapeMat®

120 and 240 Voltages

Watts Radiant Custom TapeMats are a series resistance heating cable assembly installed over plywood, backer board, or concrete slab (according to ANSI or TCNA guidelines), and then embedded in 3/8" (9.5 mm) or greater self-leveling or polymer-modified thin-set mortar.



Specifications

Supply Voltage	120VAC, 1-phase 240VAC, 1-phase
Amp Draw	See the Ordering Table below.
Maximum Circuit Load	15 amps
Wire Spacing	2.5" (63.5 mm) o.c. 3" (76 mm) o.c.
Maximum Allowable Temperature	194°F (90°C) Continuously
EMF	Less than 1 milligauss at 1/2" (12.7 mm) above surface.
Heating Elements	Oxygen-free copper or nickel-copper
Insulation	ETFE Fluoropolymer
Ground	Copper
Double-Sided Tape	1/2" (13mm), installed along both edges of mat
Minimum Allowable Bend Radius	1" (25 mm)
Power Lead Length	10' (2.7 m)

Installation Parameters

- Measure and certify the correct wire resistance (ohms) value for the heating mat, record these readings in the chart provided in the installation manual.
- Use of manufacturer's alarm meter (LoudMouth™ meter) is recommended during installation.
- Clean the subfloor.
- Lay out and secure Custom TapeMat to the floor.
- Install the floor sensor in accordance with installation manual.
- Install floor coverings as detailed in installation manual.

Application Parameters

	√			
Watt Density		C15 Series	2.5" (63.5 mm) o.c	15 W/ft² (161 W/m²) 51 Btu/h/ft² (549 Btu/h/m²)
		C12 Series	3" (76 mm) o.c.	12 W/ft² (129 W/m²) 41 Btu/h/ft² (441 Btu/h/m²)
Minimum Polymer-modified Thinset		3/8" (9.5 mm)		
Allowable Substrate		Backer board over wood subfloor		
		Polymer-modified setting bed over wood subfloor		
		Polymer-modified setting bed over concrete slab		
		Thin slab/self-leveling concrete over wood subfloor		
		Thin slab/self-leveling concrete over concrete slab		
Allowable Floor Coverings		Tile/Stone		
		Carpet (C12 Series only)		
		Hardwood (C12 Series only)		

* Most anti-fracture membranes are approved for use with Watts Radiant Custom TapeMat. Contact manufacturer for details on specific products.

- UL Listed for U.S. under UL Standard 1693 and Canada under CAN/CSA C22.2 No. 1 30.2-93. Listing file number E185866.

⚠ CAUTION

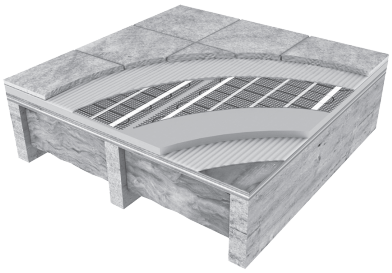
Never cut the heating cable or damage it in any way. Use only the attachment methods as described in the Installation Manuals for Watts Radiant Custom TapeMat as other methods may damage the heating element.

⚠ WARNING

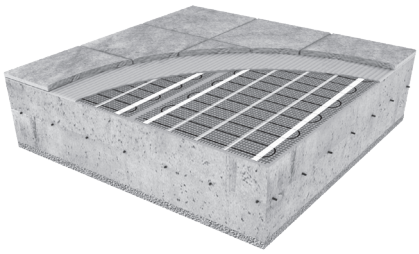
This Engineering Sheet is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.

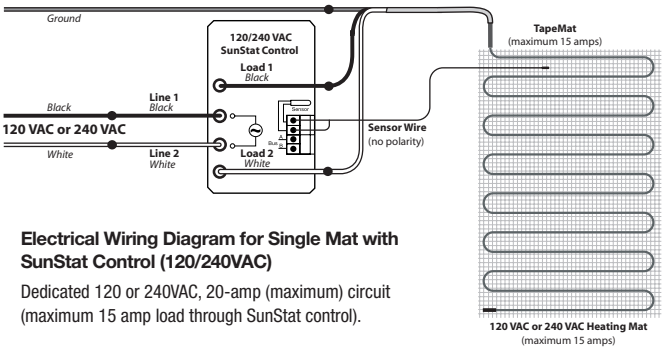
Custom TapeMat Application Examples

TapeMat over wood frame floor with backer board



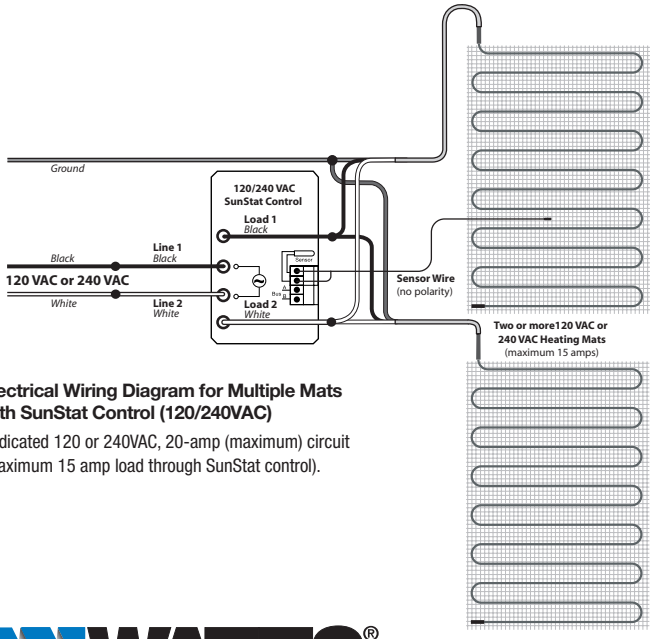
TapeMat over concrete slab.





Electrical Wiring Diagram for Single Mat with SunStat Control (120/240VAC)

Dedicated 120 or 240VAC, 20-amp (maximum) circuit (maximum 15 amp load through SunStat control).



Electrical Wiring Diagram for Multiple Mats with SunStat Control (120/240VAC)

Dedicated 120 or 240VAC, 20-amp (maximum) circuit (maximum 15 amp load through SunStat control).

120 VAC Custom TapeMats (C12 Series)

For applications requiring the C15 Series watt density, please contact

√	Application Parameters			
	Order No.	Total sq.ft	Reet Value*	Amp Draw
	81016626	10	0.11	1.0
	81016627	15	0.13	1.5
	81016628	20	0.13	2.0
	81016629	25	0.10	2.5
	81016630	30	0.06	3.0
	81016631	35	0.13	3.5
	81016632	40	0.10	4.0
	81016725	45	0.11	4.5
	81016633	50	0.14	5.0
	81016634	60	0.13	6.0
	81016635	70	0.13	7.0
	81016636	80	0.19	8.0

240 VAC Custom TapeMats (C12 Series)

√	Application Parameters			
	Order No.	Total sq.ft	Reet Value*	Amp Draw
	81016637	20	0.11	1.0
	81016638	30	0.13	1.5
	81016639	40	0.13	2.0
	81016640	50	0.10	2.5
	81016641	60	0.06	3.0
	81016642	70	0.13	3.5
	81016643	80	0.10	4.0
	81016644	90	0.11	4.5
	81016645	100	0.14	5.0
	81016646	120	0.13	6.0
	81016647	140	0.13	7.0
	81016648	160	0.19	8.0

*REET, (Radiant Electric Emissions Test), which is conducted by an independent third party test lab known as ETL/Semko.

WATTS®

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