

Warm Tiles™ SAM Mat

Floor Warming Self-Adhesive Mat. For Commercial and Residential Applications.

Product Overview

- Warm Tiles™ Self-Adhesive Mats (SAM) are ideally suited for rectangular areas, multi-unit applications, or expansive rooms.
- The cable is fixed onto a mesh substrate and comes in standard sizes of pre-fabricated rectangular mats with self-adhesive, wide-spaced backing to help reduce installation time and labor.

Applications

- SAM mats are designed to gently warm flooring materials such as:
 - Marble
 - Ceramic
 - Glass and porcelain tile
 - Slate
 - Granite
 - Poured or dimensional stone
 - Laminate and engineered hardwood products

Features

- Available in 120 and 240 Vac with standard 15 ft (4.6 m) cold leads.
- Ideal for large areas, just roll out and affix to the subfloor.
- Mats can be altered in the field to fit various floor layouts.
- Comes in standard 20 in (0.51 m) rolls that are easy to stock and carry to the jobsite.
- Provides 15 W/ft², 14 W/ft² for select models, to quickly and efficiently warm floors.
- Plastic mesh substrate (not cable) can be cut to allow for additional layout customization.
- Custom mats are available for various shaped areas that do not conform to standard mat kits, such as ovals, circles and triangles. Contact your local representative for details.
- Approved for a variety of applications and floor finishes for the ultimate in versatility and compatibility.
- Cables can be installed in tiled showers or other wet areas, although it is recommended that you check with your local electrical inspector first to verify that this application is allowed in your jurisdiction.
- Fifteen year limited warranty.

Accessories

- It is recommended that a floor temperature sensing thermostat be used to control the cable system. See *Warm Tiles™ Thermostats*.
- Relays can be used in conjunction with a thermostat to control large heated areas, where the power requirement exceeds 15 amps. See *Warm Tiles™ Floor Warming Accessories*.

Certifications

- UL Listed, CSA Certified and conform to European Directives.



Notes

- Per NEC and CEC requirements ALWAYS use a ground fault protection device (GFCI) to reduce the danger of fire from a damaged or improperly installed heating cable. Electrical fault currents caused by damaged or improperly installed cable MAY NOT BE LARGE ENOUGH to trip a conventional circuit breaker.
- Heating cables must be installed in compliance with all national, state/provincial and local codes. Check with your local electrical inspector for specific details.
- The Warm Tiles™ heating cables must be completely embedded in a cement-based layer of mortar prior to installation of the flooring material. SAM will add approximately 0.387 in (9.83 mm) to the floor height.
- Mats are not designed as a primary source of space heating for any room in which it is installed.
- Heating cable must not touch, cross or overlap itself at any point.
- Do not install heating cable under carpet, vinyl composition or linoleum type floors, or any type of nailed-down wood flooring. Floor nailing can damage the cable resulting in exposed live electrical parts and/or result in the cable overheating.
- Do not bend the heating cable at right angles – this could damage the electrical insulation; minimum bending radius is 3/4 in (19 mm).
- The heating cable of the mat must not extend beyond the room or area in which it originates.
- **DO NOT CUT THE CABLE.** Only the cold lead may be cut to suit hook-up in the electrical connection box (ECB).
- Always complete the installation resistance log and submit a copy to the owner. Take photos of the installation for record.

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Measuring Walkable Area

Warm Tiles™ Self-Adhesive Mats (SAM) mesh substrate is self-adhesive allowing you to place the mat on the subfloor and have it stay put while you embed the mat in thin-set or self-leveling underlayment. Various floor areas may be warmed with a single mat or by using a combination of mats. Find each floor section's square area by multiplying the length and width of each walkable floor section. Then add each floor section's walkable square area together for the installation's total walkable square area.

Cable Kit Room Measurement Diagram

Shaded areas represent installation areas of your mat system.

A is 1 ft 8 in x 6 ft 6 in = 10.86 ft² (0.51 m x 1.98 m = 1.01 m²)

B is 1 ft 8 in x 6 ft 6 in = 10.86 ft² (0.51 m x 1.98 m = 1.01 m²)

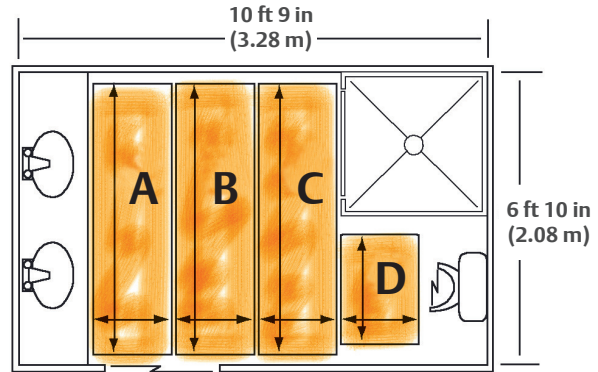
C is 1 ft 8 in x 6 ft 6 in = 10.86 ft² (0.51 m x 1.98 m = 1.01 m²)

D is 1 ft 8 in x 2 ft 6 in = 4.18 ft² (0.51 m x 0.76 m = 0.39 m²)

A + B + C + D = ft² (m²) total walkable heated area

10.86 ft² + 10.86 ft² + 10.86 ft² + 4.18 ft² = **36.78 ft²**

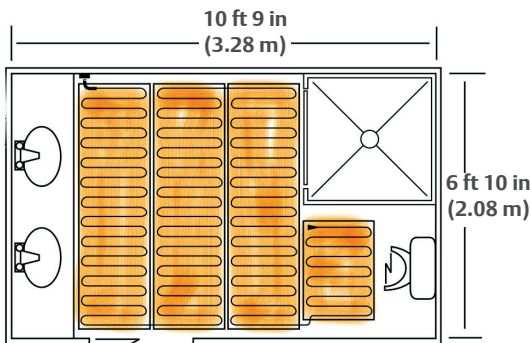
(1.01 m² + 1.01 m² + 1.01 m² + 0.39 m²) = **3.42 m²** total heated area



Cable Kit Room Layout Diagram

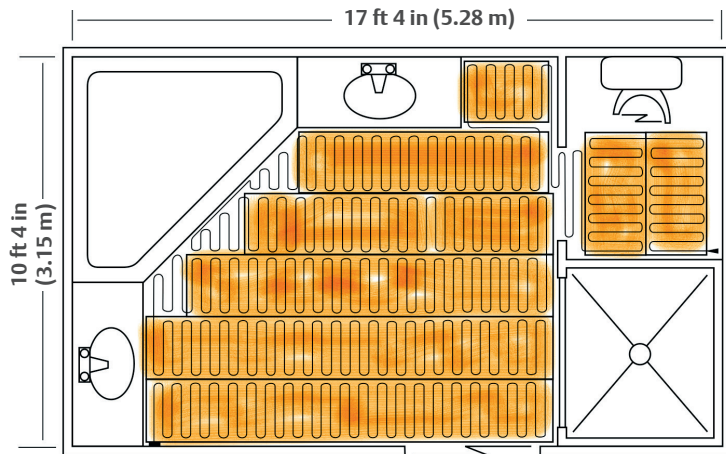
Choose the product that most closely matches your heated area square footage from the product selection chart for SAM mat kits.

In this example, you would choose 120 Vac SAM 1033 mat kit.



For additional layouts or help in choosing the right product for your project, contact your local sales representative.

In this example, you would choose 120 Vac SAM 1087 mat kit.



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Considerations For Choosing a Mat

Choose between 120 Vac or 240 Vac, to match your power supply. For areas larger than about 70 ft² (6.50 m²), the 240 Vac kits may be more economical. All mats are 20 in (0.51 m) wide. Multiple mats may be used to increase heated area ft² (m²) of installation.

SAM 120 Vac Mat Kits

Model Number	Mat Length ft (m)	Heated Area ft ² (m ²)	Amps
SAM 1010	6.67 (2.03)	12-15 (1.11-1.39)	1.3
SAM 1013	8.67 (2.64)	16-19 (1.50-1.76)	1.7
SAM 1017	11.33 (3.45)	20-22 (1.86-2.04)	2.2
SAM 1020	13.33 (4.06)	23-28 (2.14-2.60)	2.5
SAM 1025	16.67 (5.08)	29-36 (2.69-3.34)	3.1
SAM 1033	22.00 (6.70)	37-46 (3.44-4.27)	4.2
SAM 1042	28.00 (8.53)	47-54 (4.37-5.02)	5.3
SAM 1050	33.33 (10.15)	55-66 (5.11-6.13)	6.5
SAM 1062	41.33 (12.59)	67-80 (6.22-7.43)	8.1
SAM 1075	50.00 (15.24)	81-94 (7.53-8.73)	9.7
SAM 1087	58.00 (17.68)	95-106 (8.83-9.85)	11.5 Ⓞ
SAM 1100	66.67 (20.32)	107-120 (9.94-11.15)	13.1 Ⓞ

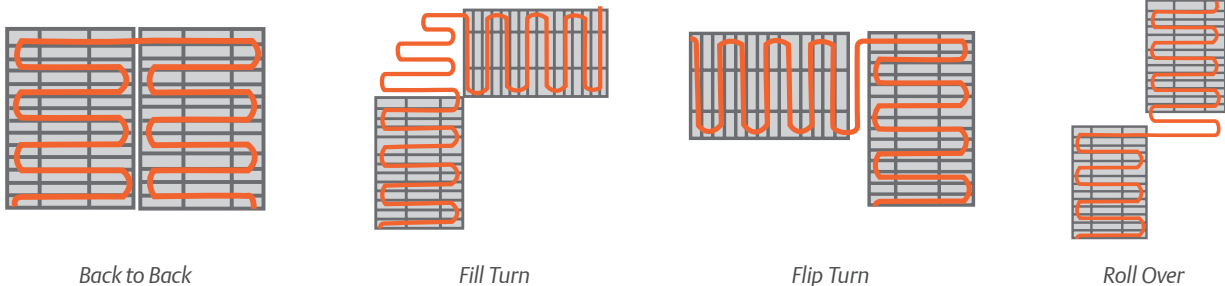
SAM 240 Vac Mat Kits

Model Number	Mat Length ft (m)	Heated Area ft ² (m ²)	Amps
SAM 2010	6.67 (2.03)	12-15 (1.11-1.39)	0.6
SAM 2013	8.67 (2.64)	16-19 (1.50-1.76)	0.8
SAM 2017	11.33 (3.45)	20-22 (1.86-2.04)	1.1
SAM 2020	13.33 (4.06)	23-28 (2.14-2.60)	1.3
SAM 2025	16.67 (5.08)	29-36 (2.69-3.34)	1.6
SAM 2033	22.00 (6.70)	37-46 (3.44-4.27)	2.1
SAM 2042	28.00 (8.53)	47-54 (4.37-5.02)	2.8
SAM 2050	33.33 (10.15)	55-66 (5.11-6.13)	3.1
SAM 2062	41.33 (12.59)	67-80 (6.22-7.43)	4.1
SAM 2075	50.00 (15.24)	81-94 (7.53-8.73)	4.8
SAM 2087	58.00 (17.68)	95-106 (8.83-9.85)	5.7
SAM 2100	66.67 (20.32)	107-120 (9.94-11.15)	6.5

Ⓞ Caution: Kit combinations that exceed 10 Amps should be connected by a qualified electrician.

Mat Shape Configurations

The heating cable of the SAM mat kit is adhered in a serpentine pattern onto lengths of mesh substrate. It is quick and easy to cover large areas. These mats can be angled, turned or completely flipped around in order to cover the space by cutting only the mesh, and moving the remaining sections of mats in a new direction. In doing this, you are creating as much walkable heated area as possible.



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Product Selection

120 Vac					
Catalog Number	Description	Heated Area ft ² (m ²)	Carton Quantity	Carton Weight lb (kg)	UPC
SAM 1010	20 in x 6.67 ft (0.51 x 2.03 m)	12-15 (1.11-1.39)	1	3 (1.4)	01362701561
SAM 1013	20 in x 8.67 ft (0.51 x 2.64 m)	16-19 (1.50-1.76)	1	3.3 (1.5)	01362701562
SAM 1017	20 in x 11.33 ft (0.51 x 3.45 m)	20-22 (1.86-2.04)	1	3.6 (1.6)	01362701563
SAM 1020	20 in x 13.33 ft (0.51 x 4.06 m)	23-28 (2.14-2.60)	1	3.9 (1.8)	01362701564
SAM 1025	20 in x 16.67 ft (0.51 x 5.08 m)	29-36 (2.69-3.34)	1	4.3 (2.0)	01362701565
SAM 1033	20 in x 22 ft (0.51 x 6.71 m)	37-46 (3.44-4.27)	1	4.9 (2.2)	01362701566
SAM 1042	20 in x 28 ft (0.51 x 8.53 m)	47-54 (4.37-5.02)	1	5.3 (2.4)	01362701567
SAM 1050	20 in x 33.33 ft (0.51 x 10.16 m)	55-66 (5.11-6.13)	1	6.2 (2.8)	01362701568
SAM 1062	20 in x 41.33 ft (0.51 x 12.60 m)	67-80 (6.22-7.43)	1	7.5 (3.4)	01362701569
SAM 1075	20 in x 50 ft (0.51 x 15.24 m)	81-94 (7.53-8.73)	1	8.7 (3.9)	01362701570
SAM 1087	20 in x 58 ft (0.51 x 17.68 m)	95-106 (8.83-9.85)	1	9.7 (4.3)	01362701571
SAM 1100	20 in x 66.67 ft (0.51 x 20.32 m)	107-120 (9.94-11.15)	1	10.8 (4.9)	01362701572

240 Vac					
Catalog Number	Description	Heated Area ft ² (m ²)	Carton Quantity	Carton Weight lb (kg)	UPC
SAM 2010	20 in x 6.67 ft (0.51 x 2.03 m)	12-15 (1.11-1.39)	1	3 (1.4)	01362701581
SAM 2013	20 in x 8.67 ft (0.51 x 2.64 m)	16-19 (1.50-1.76)	1	3.3 (1.5)	01362701582
SAM 2017	20 in x 11.33 ft (0.51 x 3.45 m)	20-22 (1.86-2.04)	1	3.6 (1.6)	01362701583
SAM 2020	20 in x 13.33 ft (0.51 x 4.06 m)	23-28 (2.14-2.60)	1	3.9 (1.8)	01362701584
SAM 2025	20 in x 16.67 ft (0.51 x 5.08 m)	29-36 (2.69-3.34)	1	4.3 (2.0)	01362701585
SAM 2033	20 in x 22 ft (0.51 x 6.71 m)	37-46 (3.44-4.27)	1	4.9 (2.2)	01362701586
SAM 2042	20 in x 28 ft (0.51 x 8.53 m)	47-54 (4.37-5.02)	1	5.3 (2.4)	01362701587
SAM 2050	20 in x 33.33 ft (0.51 x 10.16 m)	55-66 (5.11-6.13)	1	6.2 (2.8)	01362701588
SAM 2062	20 in x 41.33 ft (0.51 x 12.60 m)	67-80 (6.22-7.43)	1	7.5 (3.4)	01362701589
SAM 2075	20 in x 50 ft (0.51 x 15.24 m)	81-94 (7.53-8.73)	1	8.7 (3.9)	01362701590
SAM 2087	20 in x 58 ft (0.51 x 17.68 m)	95-106 (8.83-9.85)	1	9.7 (4.3)	01362701591
SAM 2100	20 in x 66.67 ft (0.51 x 20.32 m)	107-120 (9.94-11.15)	1	10.8 (4.9)	01362701592

FLOOR WARMING