

# Schluter® -DITRA-HEAT Calculation Sheet

Both membrane and cables need to be calculated. Follow the steps:

Membrane is selected according to the size of the area to be *tiled*.

Heating cable is selected according to the size of the area to be *heated*. Be sure to measure the heated area accurately. The allowable heated area is limited by the minimum required spacing from fixed elements such as:

- Walls, partitions, and fixed cabinets = 2" (50 mm)
- Plumbing drains and forced air heating ducts = 4" (100 mm)
- Heat sources (baseboard heaters, fireplaces, etc.) = 8" (200 mm)
- Centerline of toilet drains = 7" (180 mm)

Select a heating cable closest to, but not exceeding the total area determined in Step 3 below. Do not select a heating cable according to the size of the area to be *tiled*; this will be too much heating cable. Only select a heating cable according to the size of the area to be *heated*, and to your choice of cable spacing depending upon the specific application.

It is helpful to plan the location of a buffer zone. The buffer zone is an area where heating is not essential and heating cable installation is not planned. This area allows for placement of excess heating cable. When using 3 stud cable spacing, any additional excess heating cable may be used up by utilizing the continuously alternating 3-2 stud cable spacing at locations where more heat may be desired.

### Using Multiple Cables

Multiple DITRA-HEAT-E-HK heating cables can be connected in parallel and controlled by a single DITRA-HEAT-E thermostat if the total current is less than 15 amps. Depending on your applicable electrical and building codes, this work may need to be performed by a qualified electrician.

Multiple DITRA-HEAT-E-HK heating cables over 15 amps cannot be connected to a single DITRA-HEAT-E thermostat. Additional DITRA-HEAT-E thermostats must be used or the DITRA-HEAT-E may be combined with the DITRA-HEAT-E-RR power modules.

### IMPORTANT: HEATING CABLES CANNOT BE CUT TO FIT

Never install the heating cable under vanities with no air space beneath, bathtub platforms, free standing bathtubs with no air space beneath, kitchen cabinets or any other fixtures, or in storage or clothing closets. Excessive heat will build up in these confined spaces and may cause cable overheating.

For additional information, please see the DITRA-HEAT Installation Handbook.

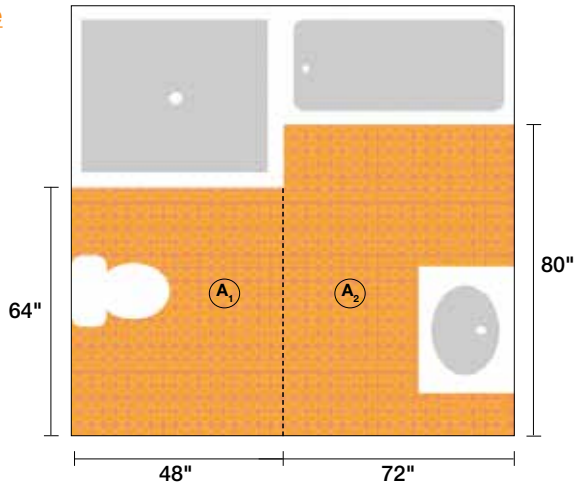
## Step 1 - Draw room

Draw the room floor plan on the other side of this sheet.

## Step 2 - Calculate membrane required

Measure areas where the membrane will be installed. The total will tell you how much DITRA-HEAT or DITRA-HEAT-DUO membrane is required.

### Example



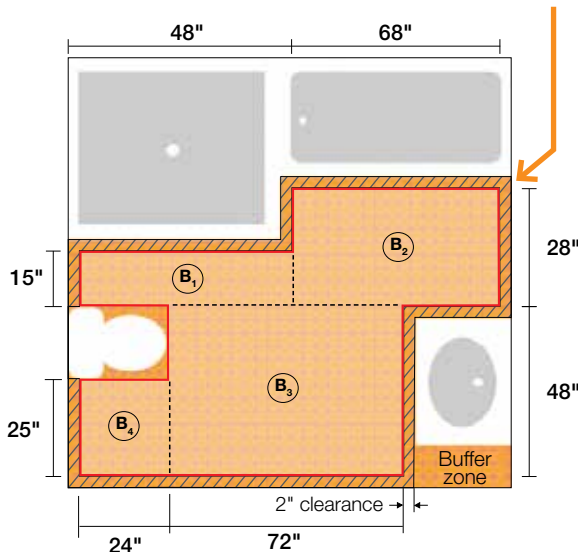
### DITRA-HEAT or DITRA-HEAT-DUO Membrane

Area	Dimensions	Total
A <sub>1</sub>	64" x 48"	3072 in <sup>2</sup>
A <sub>2</sub>	80" x 72"	5760 in <sup>2</sup>
A <sub>3</sub>	-	-
A <sub>4</sub>	-	-
Divide total by 144 to get measurement in ft <sup>2</sup>		8832 in <sup>2</sup> ÷ 144
<b>Grand Total Membrane</b>		<b>61.5 ft<sup>2</sup></b>

## Step 3 - Calculate cable size(s)

Measure areas where the heating cable is to be installed. The total tells you the maximum DITRA-HEAT-E-HK heating cable amount. Remember to account for required clearances: walls, partitions, and fixed cabinets is 2"; plumbing drains is 4"; heat sources is 8"; centerline of toilet drains is 7"

### Example



### DITRA-HEAT-E-HK Heating Cable

Area	Dimensions	Total
B <sub>1</sub>	15" x 48"	720 in <sup>2</sup>
B <sub>2</sub>	28" x 68"	1904 in <sup>2</sup>
B <sub>3</sub>	48" x 72"	3456 in <sup>2</sup>
B <sub>4</sub>	25" x 24"	600 in <sup>2</sup>
Divide total by 144 to get measurement in ft <sup>2</sup>		6680 in <sup>2</sup> ÷ 144
<b>Grand Total Heating Cable</b>		<b>46.5 ft<sup>2</sup></b>



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Area	Dimensions (inches)	Total
A <sub>1</sub>		
A <sub>2</sub>		
A <sub>3</sub>		
A <sub>4</sub>		
Divide total by 144 to get measurement in ft <sup>2</sup>		÷ 144
<b>Grand Total Membrane</b>		

Area	Dimensions (inches)	Total
B <sub>1</sub>		
B <sub>2</sub>		
B <sub>3</sub>		
B <sub>4</sub>		
Divide total by 144 to get measurement in ft <sup>2</sup>		÷ 144
<b>Grand Total Heating Cable</b>		