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# CUSTOM MANUFACTURED EPDM HEATED ROOF MATS

## **ADVANCED CARBON TECHNOLOGY**

Tempurtech's patented nano carbon sheet is the only heating element of its kind sold and manufactured in the United States. Where common heating elements use linearly temperature dependent wire resistance to generate heat, Tempurtech utilizes carbon excitation; the same principle that warms cellphone and computer batteries. Because of the material's Positive Temperature Coefficient, when the carbon is excited to its threshold temperature, it demonstrates a rapid exponential increase in resistance to reach its maximum designed temperature. When the maximum designed temperature is attained, resistance approaches infinity and current draw drops, ensuring that the heating element stays within its designed temperature range. Tempurtech's systems are designed to offer superior energy efficiency, durability, and safety.

Tempurtech's UL listed sheet heating element contains no internal wires that are typically vulnerable to shorting or burning out. Due to the nature of our heating element's PTC and material conditions, our mats may trip ground-fault circuit interrupters with lower (4-6mA) thresholds.

Tempurtech's mats meet all ETL design and component standards that meet or exceed UL standards.

### **TPO MATERIAL & COMPATIBILITY**

Tempurtech uses a special 90 mil thick EPDM rubber with a UVM-1 flame rating, guaranteeing that our mats will not burn or catch fire (the highest rating awarded to roofing materials). Our mats are extremely UV resistant, ensuring that the mats are minimally affected by long time outdoor exposure and offer a longer life expectancy.

Our mats will reach a sustained temperature of 110°F and a maximum temperature of 120°F. This is compatible with most roof warranties (please read your roof warranty and ensure that it is not voided by use of this product) and most roof types including Metal, Shingle, Asphalt, Modifieds, TPO, EPDM, PVC, etc.

#### **ELECTRICAL REQUIREMENTS**

	18" Wide	34" Wide	48" Wide
110V	0.18A/Ln ft	0.37A/Ln ft	0.52A/Ln ft
220V	N/A	0.27A/Ln ft	0.32A/Ln ft
277V*	N/A	N/A	N/A

All Tempurtech TPO mats are available at the following voltages:

\*Voltage for Hot Mat. Sustained temperature: 135°F. Use only if no other power option is available and only if roof warranty allows

#### **INSTALLATION**

Tempurtech offers a recommended double-sided adhesive tape that will secure mats to a wide range of roof types.

Our mats may be installed over an existing roof or under a new roof. Mats may be nailed through if applied under a new roof. Two marked areas are to be avoided when nailing mats.