



**100**

BTU'S OF ENERGY  
STORAGE PER  
SQUARE FOOT OF  
MATERIAL

FAST PAYBACKS IN  
AS LITTLE AS

**2-3 YRS**

# NETZERO ENERGY JUST GOT EASY

## PHASE CHANGE MATERIALS

THERMAL MASS, WITHOUT THE MASS.

INFINITE-R™ WORKS LIKE ICE IN A COOLER TO  
CONDITION YOUR BUILDING WITHOUT USING ENERGY!

## COMFORT DESIGNED BY NATURE

ABSORB AND RELEASE  
ENERGY NATURALLY  
WITHOUT CONSUMING  
ENERGY



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## PHASE CHANGE MATERIAL

Infinite R™ is a building product using phase change materials to store and release heat during winter, and to reduce heat buildup, air conditioning costs and peak loads in summer.

InfiniteR™ phase change material products are built around a fundamental property of Nature: The natural tendency of materials to absorb heat when they melt (phase change from solid to liquid/gel) and to release heat when they solidify (phase change from liquid/gel to solid). When these phase change materials are placed in quantity into the structure of a building, they will naturally absorb heat or air condition the building during the day and release heat at night. Working to provide year round comfort with heating and cooling savings.

## SPECIFICATIONS

**THERMAL CAPACITY** 100btu/sf

**PHASE CHANGE MATERIAL** Mineral Based/Inorganic

**TEMPERATURES** 65F(18), 69F(21C), 73F(23C), 78F(25C), 84F(29C)

**DIMENSIONS** Standard 16" & 24" wide x 24", 48" & 96" long

**LATENT HEAT** 86 btu/lb

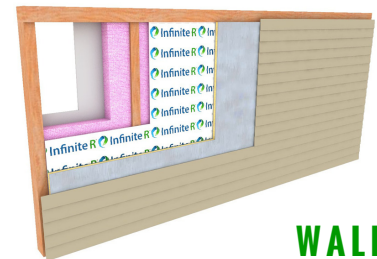
**SPECIFIC HEAT** 1.35 btu/lb

**THERMAL CONDUCTIVITY** ~0.16 W/ft/K Liquid, ~0.33 W/ft/K Solid

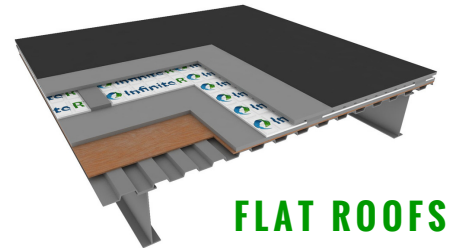
**THICKNESS & WEIGHT** 0.25" thick; 1.1 lbs/sf (+/-)

**FLAME SPREAD** ASTM E84|UL723 - Flame 5, Smoke 10

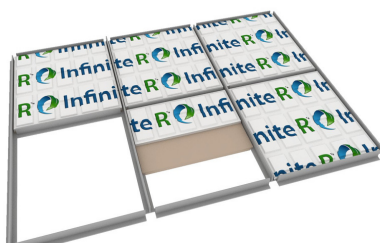
**PERMEABILITY** ASTM E96 - 0.08 (grains/hr\*ft<sup>2</sup>inHg)



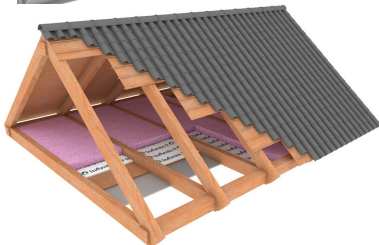
**WALLS**



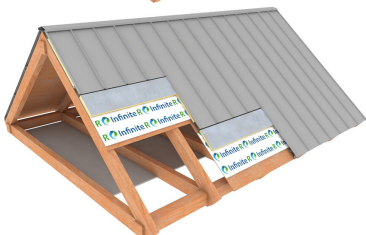
**FLAT ROOFS**



**CEILINGS**



**ATTICS**



**PITCHED ROOFS**

## RESIDENTIAL

Infinite-R™ MORE THAN pays for itself by reducing HVAC system sizing, insulation and wall framing depths WITHOUT adding the weight of conventional mass. Infinite-R™ is essential to any NetZero or Passive House design.

## COMMERCIAL/INDUSTRIAL

Installed during roof replacements (flat roof or pitched roof), Infinite-R™ has been shown to substantially reduce heat flux of the roof. With Class A fire rating, it can also be installed in suspended ceilings, interior and exterior walls and remain exposed in high internal gain spaces.

## AGRICULTURE

Perhaps the most ideal application for phase change materials - stabilize crop temperatures in greenhouses, reduce risk in crop storage, maintain animal comfort in nurseries and barns, save huge energy costs & reduce product loss & fatalities.

