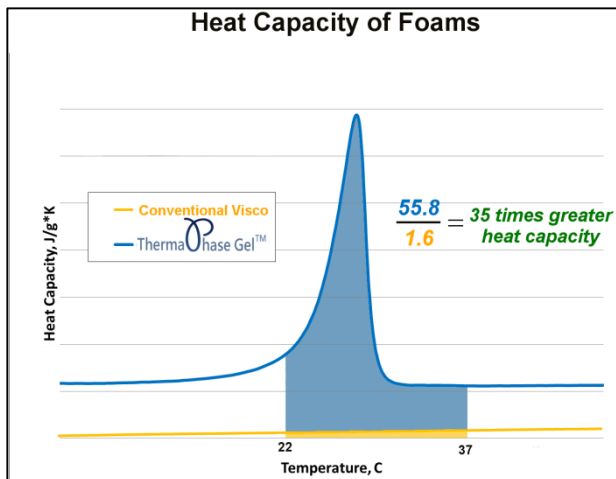
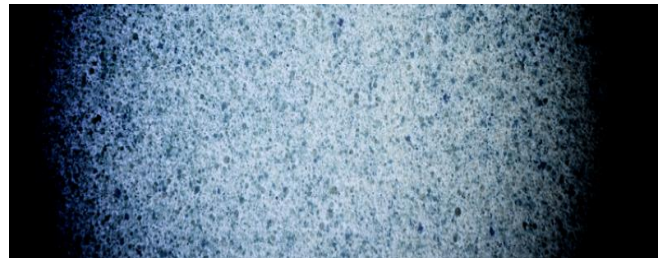


Enhanced Thermoregulation: The unique ThermaPhase Gel™ technology incorporates the thermoregulation of phase change material into open-cell viscoelastic gel-foam technology, providing improved temperature regulation. Studies have demonstrated that the optimal skin temperature of a person that provides most comfortable and restful sleep is 87° to 90°F (30-32°C). This temperature is maintained through the infinitely reversible phase change of the ThermaPhase material, as it can absorb or liberate heat when it is in contact with a body having a surface temperature higher or lower than the target temperature.

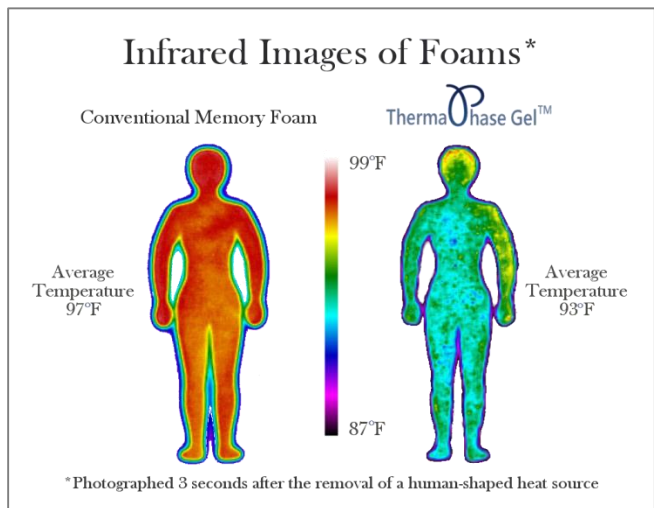


DSC measurements of two visco foams, one with 20% ThermaPhase material, integrated over the range from typical room temperature of 22°C (72°F) to 37°C (98.6°F), the human core body temperature.

High Heat Capacity: ThermaPhase Gel™ can act as a giant heat sink or source depending on temperature conditions, with its heat capacity peaking at the most comfortable temperature for sleeping. Compared with conventional visco foam, ThermaPhase Gel™ material has up to 7-times greater dynamic thermal conductivity and over 650-times greater heat capacity in the target range. Depending on the amount loaded into foam, ThermaPhase material can increase the foam's thermal capacity 10-35 times.



Rapid Thermal Conduction: ThermaPhase Gel™ combines highly conductive, open-cell visco with the added heat capacity and conductivity of gel to produce a very powerful heat transfer system. Upon reaching an ideal sleeping temperature, the phase change material undergoes a molecular transformation. This change of phase results in an extremely high heat capacity that works to maintain the temperature at the optimal level.



Variable Temperature Control: The distribution of phase change material throughout the foam and the fast conductivity of the open-cell visco and gel combination enable ThermaPhase Gel™ material to meet the temperature needs of different regions of the body. Body heat can be absorbed from high-temperature areas like the torso and rapidly transferred to the cooler extremities. This results in a uniform distribution of heat throughout the mattress to maintain a comfortable temperature for restful sleep.