

Peterson Chemical Technology

Partnering with



Peterson Chemical Technology

We are...

- Manufacturers of Polyols & Additives
- 100% Focused on Comfort Technology
- Base Operations in Texas, Arkansas & Kentucky
- Global Sales on 6 Continents
- Strategic Partner with **Pacific Urethanes** for New Technology Development



Peterson Chemical Technology Development Center

- Established in 2002
- Team of 20 Chemists, Engineers, Physicists and Technicians
- Foam Hand-mix Laboratory
- Materials Development Laboratory
- Special Equipment Fabrication
- 35,000 ft² of Lab and Pilot Plant



Memory Foam How It All Started

Viscoelastic foam developed at NASA's Ames Research Center in 1966 by Kubocowa & Yost

NASA released visco technology in the 1980's.

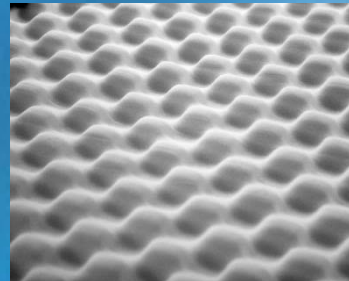
Tempur-Pedic introduced memory Foam mattresses into North America in 1992



What was Wrong with Memory Foam?

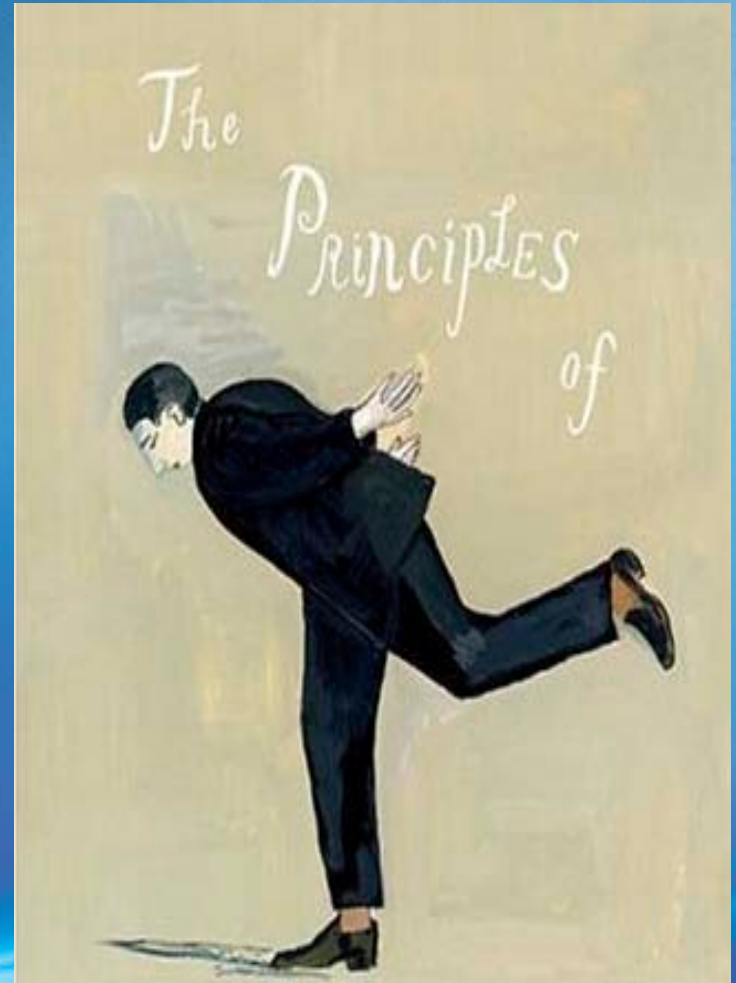
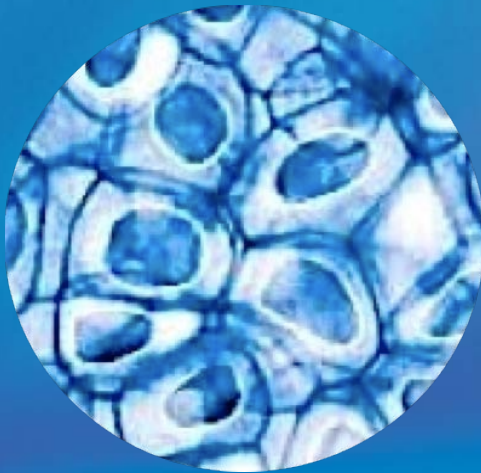
Tempur's Customer Complaints undermined an otherwise stellar rise to prominence in the specialty bedding market

- Memory Foam “slept too hot”
- “too much odor”
- “beds too hard/stiff”
- Tempur's beds “did not feel the same as the showroom samples”



The Solution...

- Create a New Polymer Design not based on Rigid Insulation Foam Chemistry
- **The Result**, a unique new memory foam, Open-Cell Viscoelastic Foam –
- **Cool-Flow Visco™**



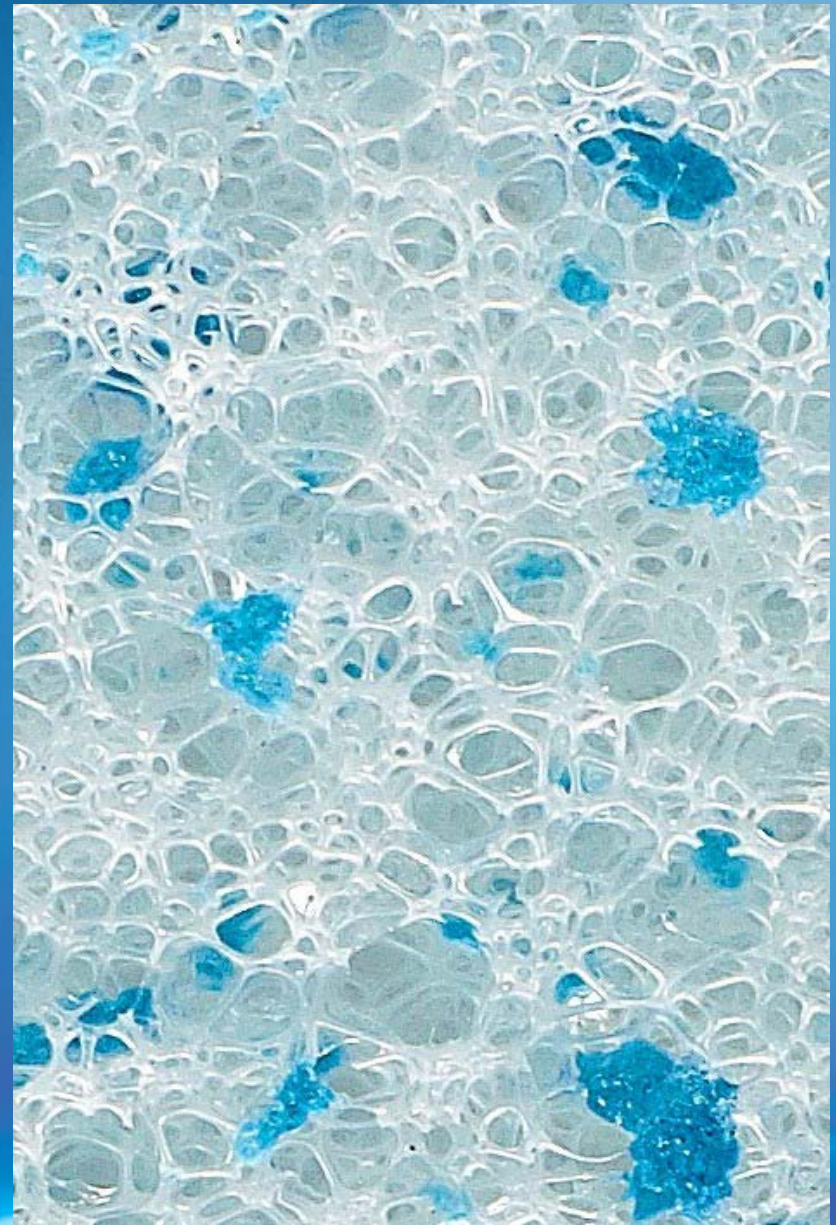
Cool-Flow Features

- ▶ Dramatically enhanced air-flow
- ▶ Dissipates heat and moisture
- ▶ Improved pressure distribution
- ▶ Outstanding static and dynamic fatigue properties
- ▶ Virtually odor-free
- ▶ Lighter and more efficient



The Next Big Thing...

- The introduction of **gel-infused viscoelastic foam** – ThermaGel Foam™
- Developed and patented by Peterson Chemical Technology
- First Generation of a binary polymer system for memory foam



Gel-infused Memory Foam Benefits

- Combines the form-fitting support of gel with the comfort and pressure-relief of memory foam
- Gel is a great conductor of heat
- Gel has very high heat capacity – provides a reservoir to remove excess body heat
- Consumers are familiar with gel and can associate many therapeutic and comfort products with gel materials



Looking toward the Future...what is next?

It starts with a vision of change

- Hold on to the great property gains already achieved with Cool-Flow Visco and ThermaGel Foam materials
- Step away from the copycats and inspire the marketplace
- Elevate the “cooling story” to a whole new level of **Comforting Thermal Regulation**



Introducing the Coolest New Technology

announcing

ThermaPhase Gel™

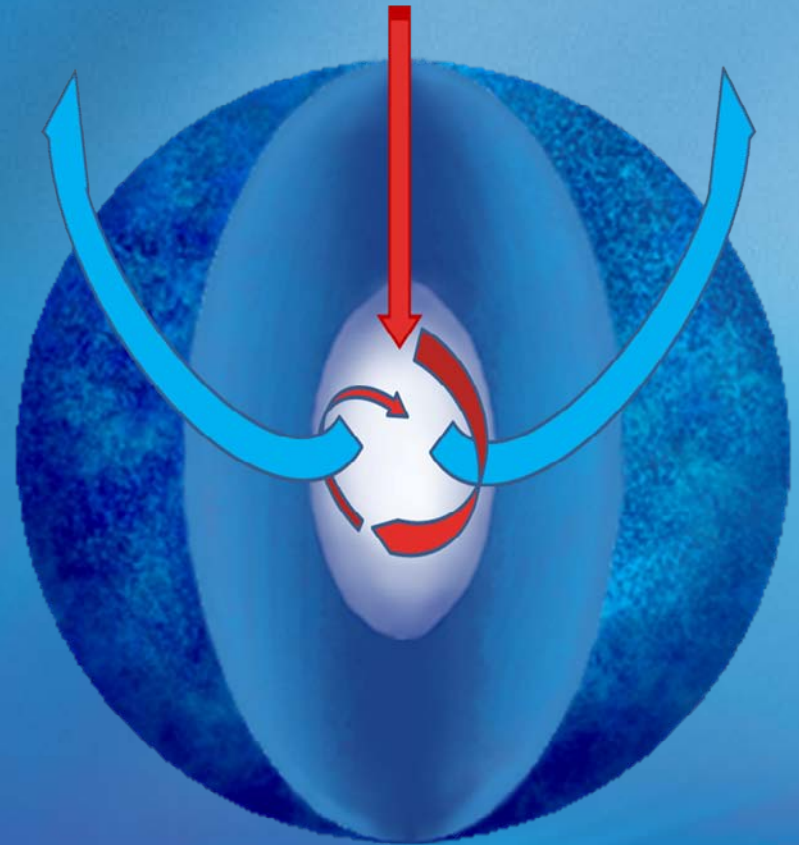
phase-change *microGel*



ThermaPhase Gel™

supercharging the cooling-effect...

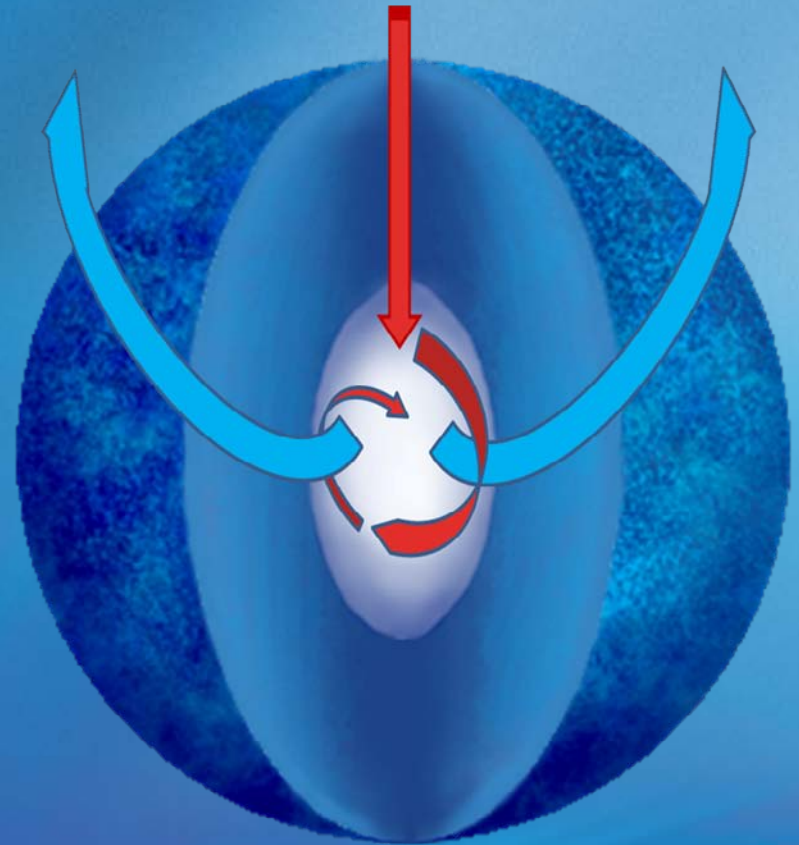
- Patent pending gel encapsulation process for phase-change materials
- PCMs designed to absorb or liberate heat at a specific temperature
- 10X the heat capacity of foam
- Infinitely rechargeable thermal regulating material



ThermaPhase Gel™

The secret to thermal regulation...

- Phase-change materials act as a super sponge for absorbing heat
- ThermaGel works with a Phase-change core to absorb & channel heat away from the body
- Retains flexibility, durability and support



Cool-Flow, ThermaGel Infusion and ThermaPhase *microGel*

Three-way comfort for all...

1. Convective Cooling:

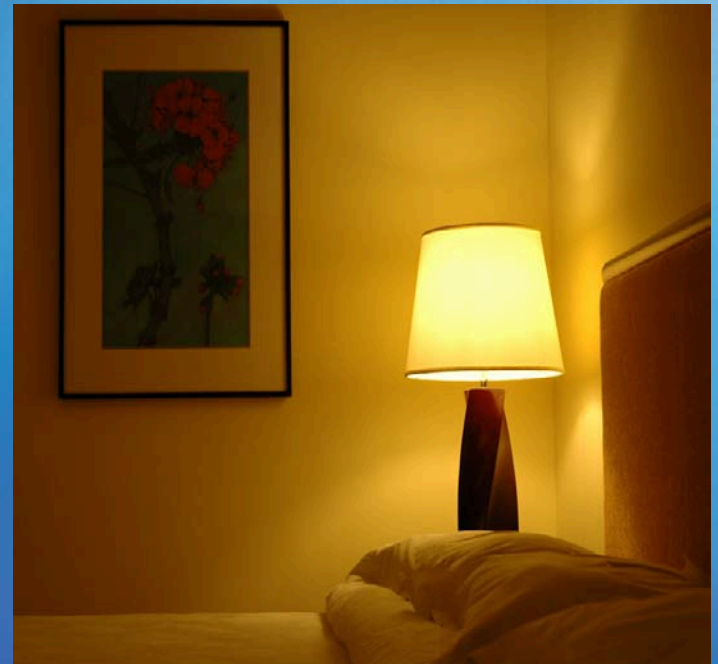
Natural open cell structure cools with air flow.

2. Conductive Cooling:

Cool-Flow conductive polymer technology combined with ThermaGel™ infusion provides superconductive heat flow

3. Latent Cooling:

Phase-change Gel amplifies thermal regulation



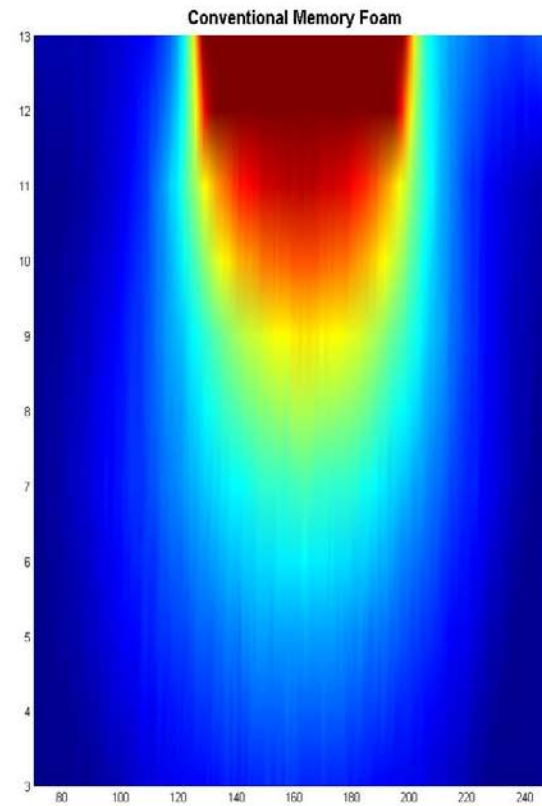
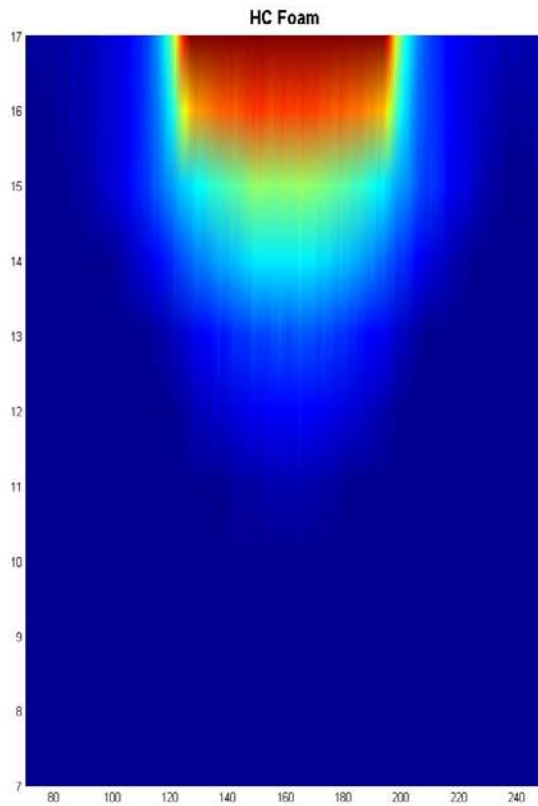
3D Thermo-graphic Imaging (Full Mattress)

ThermaPhase *microGel*™

demonstrates much less accumulation of heat under a sleeping body

ThermaPhase Gel™ Mattress

Conventional Memory Foam Mattress





*Are you sleeping
on the right side of the bed?*



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