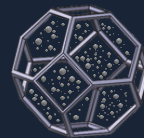


# FOAM AT B&A QUILTING



AeroSpheric<sup>®</sup>  
AeroSync<sup>®</sup>  
Foams

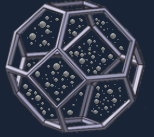


## AeroSpheric Memory GX<sup>®</sup>

- Pressure-relieving Visco Elastic material infused with our Hyper Conductive Graphite Spheres
  - Hyper Conductive Graphite, combined with a highly open-celled structure, provides an enhanced thermo-regulating sleep environment experience compared to other Visco Elastic foams. This is achieved through the super conductive properties of our Graphite Spheres paired with our Xtreme Open-celled material, offering infinite regulation of the sleep experience
  - **Environmentally Friendly** materials infusion
  - Exceptionally **Durable** material over its lifetime
  - High **Breathability** and temperature management
  - Xtreme **Open-celled** foam
  - **Pressure Relieving** Visco Material for enhanced comfort
  - **100% Recyclable**
- 
- Densities : 40kg -50kg -60kg
  - Hardness ranges : 50-80 newtons
  - Feel: Soft to Medium

## AeroSpheric HR-GX<sup>®</sup>

- Superior high resilience material infused with our Hyper Conductive Graphite Spheres
  - Hyper Conductive Graphite in combination with our open-celled high resilience foam providing an enriched thermo-regulating sleep environment experience in comparison to other standard foams. Achieved through the super conduction properties of our Graphite Spheres paired with our Xtreme Open-celled material allowing unrivalled comfort and support
  - **Environmentally Friendly** materials infused in our foams
  - Exceptional **Durability**
  - High **Breathability** and temperature management
  - Xtreme **Open-celled** foam
  - Superior resilience and rebound properties providing excellent comfort and support
  - **100% Recyclable**
- 
- Densities : 40kg -50kg -60kg
  - Hardness ranges : 70-125 newtons
  - Feel: Medium to Firm

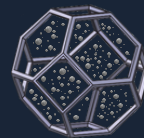


## AeroSync HRX<sup>®</sup>

- Hyper resilient material in combination with our Xtreme Open-celled formulation. Providing an enriched sleep environment experience in comparison to other standard foams
  - AeroSync high-resilience foam offers elasticity and unrivalled body support. It provides enhanced air and moisture ventilation and regains its original shape immediately after compression
  - Achieved through the super resilience and rebound properties paired with our Xtreme Open-celled structure
  - **Environmentally Friendly** materials infusion
  - Extreme **Durability** during its lifetime
  - Superior resilience and rebound properties providing excellent comfort and support
  - Xtreme **Open-celled** foam
  - **100% Recyclable**
- 
- Densities : 40kg -50kg -60kg
  - Hardness ranges : 70-125 newtons
  - Feel: Medium to Firm

## AeroSync Memory HDX<sup>®</sup>

- Pressure relieving Visco Elastic material in combination with our Open-celled formulation. Providing an enriched sleep environment experience in comparison to other visco foams
  - Achieved through the combination of resilience and recovery properties paired with our Xtreme Open-celled structure providing support, pressure relief, comfort and breathability all in one material
  - AeroSync Memory HDX foam offers elasticity and unrivalled body support. It provides enhanced air breathability and moisture ventilation along with super resilience and rebound properties in combination with our Xtreme Open-celled structure
  - **Environmentally Friendly** materials infused in our foams
  - Pressure relieving
  - Extremely **Durable** material over its lifetime
  - Superior resilience and rebound properties providing excellent comfort and support
  - Xtreme **Open-celled** foam
  - **100% Recyclable**
- 
- Densities: 40kg -50kg -60kg
  - Hardness ranges: 50-80 newtons
  - Feel: Soft to Firm

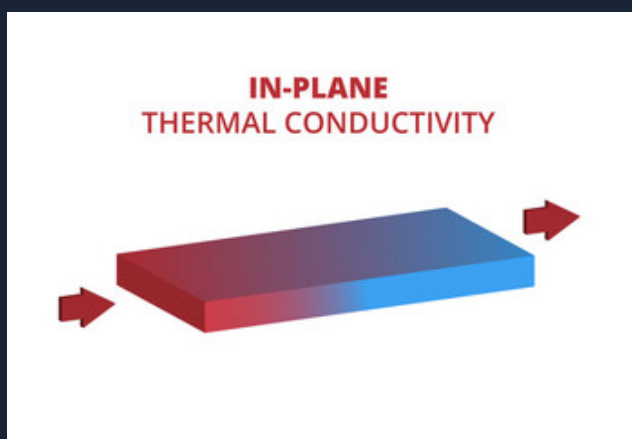
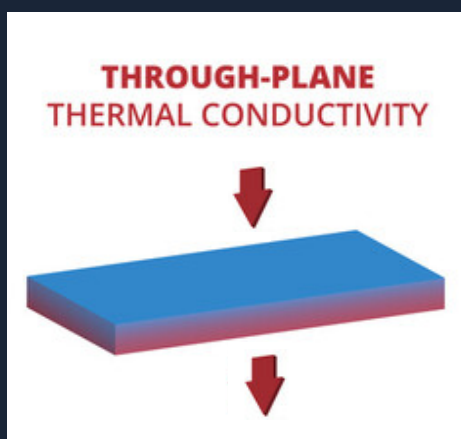


## AeroSpheric<sup>®</sup> Graphite Cooling Spheres

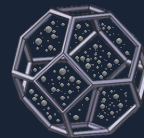
AeroSpheric Graphite Cooling Spheres are a natural, environmentally friendly thermal transfer material providing unrivalled temperature regulation properties.

The particle geometry and composition of our AeroSpheric cooling additives have been specially engineered for optimal heat transfer and dissipation properties.

These Graphite Spheres are engineered to line up easily and to form bridges that conduct heat in the direction of their orientation in both the In-Plane and Through-Plane directions providing unparalleled thermal transfer properties.



This superior thermal property along two directions (In Plane/Through Plane) makes our Graphite Spheres one of the most effective candidates to conduct excess body heat and dissipate it away from the sleeper for a cooler, restful sleep.

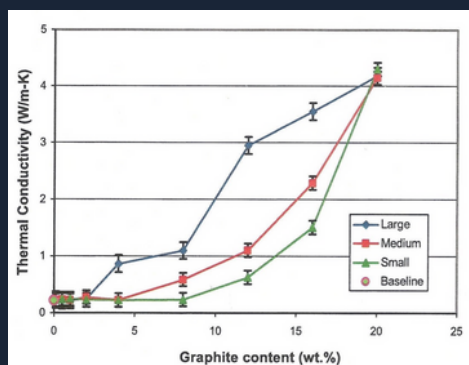


## AeroSpheric<sup>®</sup> Graphite in Foam

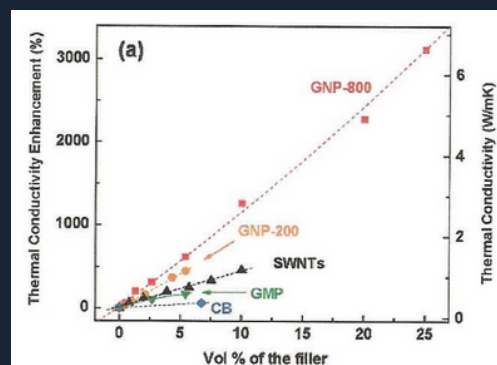
Science and research has firmly established that incorporating graphite into foam composites significantly enhances its thermal properties. This conclusion is backed by numerous studies that have investigated various forms and configurations of graphite fillers in polyurethane (PU) foams and other composite materials.

### Expandable Graphite (EG) and Graphite Flakes

Researchers at Oak Ridge National Laboratory (ORNL) identified expandable graphite (EG) as a promising material for enhancing heat transfer in foams. Studies conducted by Prieto R. et al. (2008) demonstrated that PU foam composites containing varying proportions of graphite flakes exhibited superior thermal properties. This indicates that graphite flakes significantly enhance the material's ability to conduct heat, maintaining a cool sleeping surface.



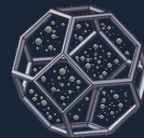
Studies by Debelak B. and Lafdi K., 2007 involving exfoliated graphite (EG) composites have consistently shown that thermal conductivity improves with increased EG content. Larger graphite flakes, in particular, provide superior transport properties compared to smaller flakes at the same concentration levels. This can be attributed to the larger grain and crystallite size of the larger flakes, which facilitate better heat transfer.



Comparative studies by Debelak B. and Lafdi K. (2007) found that composites filled with large flake Exfoliated Graphite formed strong thermal conductive networks due to the higher aspect ratio of Exfoliated Graphite.

This study found a 2000%+ thermal conductivity enhancement when 20% volume of graphite filler was used.

To conclude, the **integration of graphite into foam significantly enhances thermal properties**, providing **optimal heat transfer and thermal management**, which is particularly beneficial in applications like sleeping surfaces where temperature regulation is crucial for a better sleep.



## CertiPUR Certified

At B&A Quilting, quality isn't just a promise—it's a certified standard. We're proud to announce that our foam is now CertiPUR™ certified, meeting the highest standards for safety, durability, and environmental responsibility.

What does this mean for your sleep products?

- **No harmful chemicals like formaldehyde or heavy metals**
- **Low VOC emissions for cleaner indoor air**
- **High-performance, long-lasting durability**
- **Responsibly produced with eco-conscious materials**

