

XG Leaf® B INFORMATION SHEET

High Performance, Graphene Heat Spreaders

Heat dissipation is a critical limiting factor in the performance and reliability of today's electronic systems. Lightweight, carbon-based heat spreaders are being increasingly used to mitigate these thermal problems. The XG Leaf® B product line of graphene heat spreaders is competitively positioned to offer the best combination of thermal performance, price, thickness range, product and operational flexibility to address the requirements of a broad range of applications. XG Leaf® B sheets are directionally-optimized with highly anisotropic in-plane thermal conductivity for efficient heat spreading and reduced hot spots. The superior in-plane electrical conductivity XG Leaf® B also provides excellent EMI shielding. XG Leaf® B sheets can be custom coated or laminated, and easily die cut. Their flexibility allows them to readily conform to small corners and challenging geometries and bond to plastic and metal parts. XG Leaf® is a platform of sheet products formulated using XG Sciences' xGnP graphene nanoplatelets that have significantly higher intrinsic thermal and electrical conductivity than natural graphite and metals. A high degree of anisotropy is achieved by orientation of the graphene nanoplatelets in the XG Leaf® sheets. Several grades of XG Leaf® are available over a wide thickness range that satisfy a variety of end-use requirements for thermal conductance, electrical conductance, or resistive heating.

Benefits of XG Leaf® B:

- Excellent in-plane thermal conductivity
- Excellent in-plane electrical conductivity
- Available in wide thickness range
- Highly anisotropic properties, relatively consistent with thickness
- Bending flexibility
- Customizable mechanical properties
- Lightweight
- Corrosion resistant

Heat spreading applications of XG Leaf® B across several markets:

- Consumer electronics: smart phones, tablets, PCs, TVs
- LED lighting
- Energy storage
- Automotive
- Industrial
- Medical
- Military and aerospace