

XG Leaf®

Product Overview

With today's increased demands for advanced materials to optimize thermal conductivity, thermal spreading, electrical properties, and corrosion resistance, companies are discovering that **XG Leaf®** is a more effective solution than aluminum and copper foils for a wide variety of applications.

XG Leaf® is a thin, flexible and lightweight sheet product built on a foundation of XG Sciences' **xGnP® Graphene Nanoplatelets**. By precisely tailoring the composition, density, and our proprietary manufacturing process, we create materials with unique properties to optimize thermal and electrical conductivity for our customers' specific needs. Different types of **XG Leaf®** graphene paper offer outstanding thermal and electrical properties:

- **Thermal Conductivity and Spreading** - In-plane conductivity above 550 W/mK
- **Electrical Properties** - Formulations are available with surface resistivity ranging as low as 0.04 Ω/sq

Potential applications include:

- Thermal management and heat spreading
- EMI Shielding
- Electrodes for batteries and Supercapacitors

Structure	Single Layer
Thickness (µm)	30 - 240
Sheet Size (in)	11.5" x 23.5"
Density (g/cm ³)	1.8
Tensile Strength (MPa)	10
Thermal Conductivity In-Plane • Through Plane (W/mK)	550 • 3
Electrical Conductivity In-Plane (S/cm)	3700
Electrical Resistivity Surface (Ω/sq) • Sheet (µΩ-m)	0.06 • 2.7
EMI Shielding (dB) @30 MHz • 1.5 GHz	53 • 58
Max. Operating Temperature (°C)	450
RoHS Compliant	Yes

XG Sciences believes the information in this sheet to be accurate at publication. XG Sciences does not assume any obligation or liability for the information in this technical data sheet. No warranties are given. All implied warranties of fitness for a particular purpose are expressly excluded. No freedom from infringement of any patent owned by XG Sciences or other is to be inferred. XG Sciences encourages its customers to review their manufacturing processes and applications for XG Leaf® from the standpoint of human health and environmental quality to ensure that this material is not utilized in ways that it is not intended or tested. Product literature and safety data sheets should be consulted prior to use.

Please contact XG Sciences or visit www.xgsciences.com for the most current technical information.