

**XGLEAF™****TECHNICAL DATA SHEET**

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** - Formulations are available with in-plane conductivity above 500 W/M°K
- **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
- Conductive substrate for bio-sensors
- Resistance heating
- High-barrier packaging
- Reinforcement for composites
- Water treatment

Engineered Solutions

Coated
Laminated
Die cut

Packaging Options

Boxed in sheet form (200 sheets 360 cm ²)
On carrier film in rolls
Coated and laminated

Please contact us to discuss how XG Sciences can work with you to create custom formulations for your applications.

www.xgsciences.com

Phone: +01.517.703.1110

Fax: +01.517.703.1113

Email: info@xgsciences.com





XG LEAF™ - B Product Characteristics

Thermal management and heat spreading, EMI shielding, electrical conductivity

	B-070	B-071	B-072
Structure	Single Layer		
Thickness (μm)	30	50	75
Sheet Size (cm)	60 x 60 (0.36 m ²)		
Density (g/cm ³)	1.8		
Tensile Strength (MPa)	10		
Thermal Conductivity In-Plane • Through Plane (W/mK)	500 • 3		
Specific Heat @ 25°C (J/g ⁰ K)	0.71		
Electrical Conductivity In-Plane (S/cm)	3800	3700	3300
Electrical Resistivity Surface (Ω/sq) • Sheet (μΩ-m)	0.1 • 2.6	0.06 • 2.7	0.04 • 3.0
EMI Shielding dB @30 MHz • dB @1.5 GHz	51 • 53	53 • 58	56 • 64
Max. Operating Temperature (°C)	450		
RoHS Compliant	Yes		

XG Sciences believes the information in this technical data 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.

www.xgsciences.com

Phone: +01.517.703.1110

Fax: +01.517.703.1113

 **XG sciences**
THE MATERIAL DIFFERENCE

General Inquiries: info@xgsciences.com

Sales Inquiries: sales@xgsciences.com

Korean Sales: sales@xgsciences.com.kr

