FormulaBT™ Characteristics:
High Purity - High, consistent carbon content (>99.9%) with low moisture content, and extremely low impurities
High Crystallinity - Near 100% crystallinity leads to excellent electrical conductivity, thermal conductivity and lubrication performance
Defined Texture - Advanced milling and processing technologies produce defined particle shape, surface area, and bulk density to maximize the electrical conductivity of electrodes
Defined Particle Size Distribution - Predictability in performance and processability

FormulaBT™ Benefits:
Excellent Electrical Conductivity - Provides outstanding electrical and thermal conductivity at lowest possible concentration of graphite in electrode systems
High Lubricity - Substantially reduces tool wear in the manufacturing process of the cathode rings
Compressibility for High Mechanical Strength - Provides the compressed electrodes with outstanding mechanical stability and integrity
Chemical Stability - No chemical interference with active materials in the electrode mix, or with electrolytes

Electrically Conductive Additives in Various Battery Systems
(Primary Alkaline, Lead Acid, Zn-Air, Li-ion batteries and others)

FormulaBT™ (Battery Technology) are carbon and graphite powders, developed and manufactured by Superior Graphite, primarily for use in the energy marketplace. FormulaBT™ takes advantage of our proprietary Electro-Thermal Treatment/Purification Technology. This continuous high temperature process exposes the raw materials, e.g. natural flake or vein graphite, synthetic graphite and other carbonaceous products to temperatures approaching 3000º C, so that impurities including inorganic contaminants are vaporized. Combined with a variety of milling and classification techniques and processes, FormulaBT™ provides the market with superior performance and high purity products.
**FormulaBT™ offers excellent electrical conductivity in electrode systems**

Electrical Resistivity of MnO₂/Graphite Mix as a Function of the Graphite Content

![Graph showing electrical resistivity vs. graphite content](image)

**FormulaBT™ 2939APH significantly improves the strength of MnO₂ cathodes and eliminates binders**

Mechanical Strength of MnO₂/Graphite Tablets

![Graph showing mechanical strength vs. graphite content](image)
FormulaBT™ Products
Electrically Conductive Additives in Various Battery Systems
(Primary Alkaline, Lead Acid, Zn-Air, Li-ion batteries and others)

**FormulaBT™ ABG series** - High purity expanded flake graphite powders, large surface area, various particle sizes. Outstanding electrical and thermal conductivity enhancer for various battery systems.

**FormulaBT™ LBG series** - High purity natural flake graphite powders. Excellent electrical and thermal conductivity enhancer, various particle sizes down to 4 micron, well-defined particle size distribution specially developed for battery and fuel cell applications. Very high compressibility and lubricating properties.

**FormulaBT™ 29xx series** - Electro-thermally purified, natural flake graphite powders from 10 micron up to 800 micron. Conductivity additives, easy to compress, low tool wear.

**FormulaBT™ is more than just a high performance energy material.**
It’s a philosophy:

- Our innovative research and development team provides Superior Solutions with customized products
- Our dedicated production staff, combined with ISO 9001:2015 certified quality management systems ensure high quality products which meet agreed-upon specifications
- Our extensive worldwide distribution network ensures supply chain efficiency
- Our materials management experts secure the supply of high quality raw materials, and continuously evaluate new sources globally

Our Mission:
We create value for our customers by providing SUPERIOR SOLUTIONS - utilizing our unique technologies, processes and talents - while contributing to the company’s long-term success.

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Printed in the U.S.A. • Rev. 1/2019