Acetylene Black

Alkylate Fluids

Cable Flood, Fill & Gels

Corrosion Inhibitors

Dielectric Fluids

Performance Chemical Additives

Polyalpha-olefins

Polybutenes

Refrigeration Fluids

WHO IS SOLTEX?

Specialty Chemical Manufacturer & Distributor

- Founded in Houston, Texas in 1990
- Technical Support & Quality Assurance Labs

Operations and ASTM Laboratory Locations:

- Houston, Texas, USA
- Baytown, Texas, USA
- Bellville, Ontario, Canada

Specialized Chemicals:

- Acetylene Black
- Graphite
- Dielectric Fluids
- Performance Chemical Additives
- Polyalphaolefins
- Polybutene
- Refrigeration Fluids

ACETYLENE BLACK

- **Specialized Acetylene Black is characterized by:**
  - High Structure, High Purity
  - High Surface Area
  - Higher Electrical Conductivity
  - Highest Degree of Aggregation
  - Crystalline Orientation
  - High Thermal Dissipation
  - Low Metal Content; Most Non-detectable

- **Acetylene Black's high purity, high structure, and electrically conductive properties make it a specialty carbon additive for battery applications.**
- **AB purity has a typical carbon content of 99.9%.**
- **Available in Powder and Granular Form**
- **Polybags and Paper Bag Packaging**

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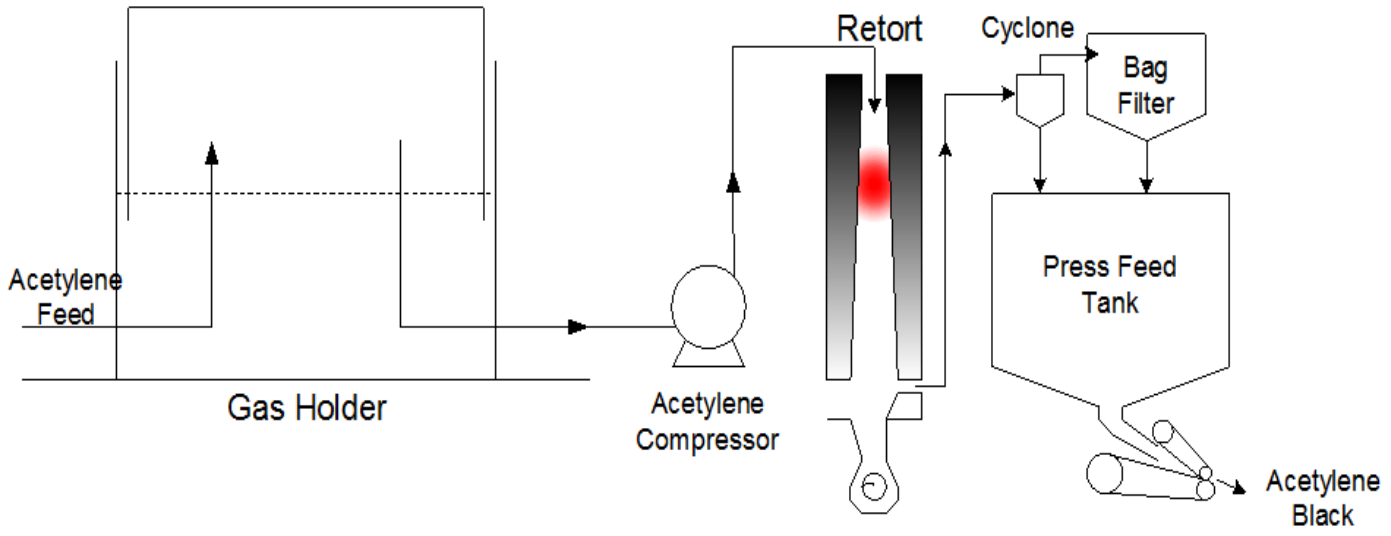
ACETYLENE BLACK

How is Acetylene Black Manufactured?

$$C_2H_2 \text{ ---> } 2C + H_2 + \text{Energy}$$

Continuous exothermic decomposition of acetylene at temperatures above 1500°C without air. The yielded carbon is separated from the hydrogen, producing a high structure, high purity acetylene black. Acetylene can be sourced from either byproduct ethylene cracker or on-purpose calcium carbide.



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ACETYLENE BLACK APPLICATIONS

BATTERIES

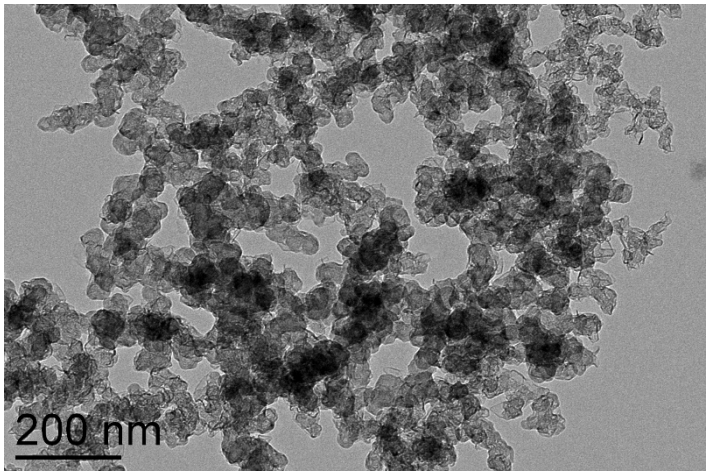
- Zinc carbon
- Zinc air
- Lithium-ion
- Lithium polymer
- Lithium sulfur dioxide
- Lithium thionyl chloride
- Sealed lead acid

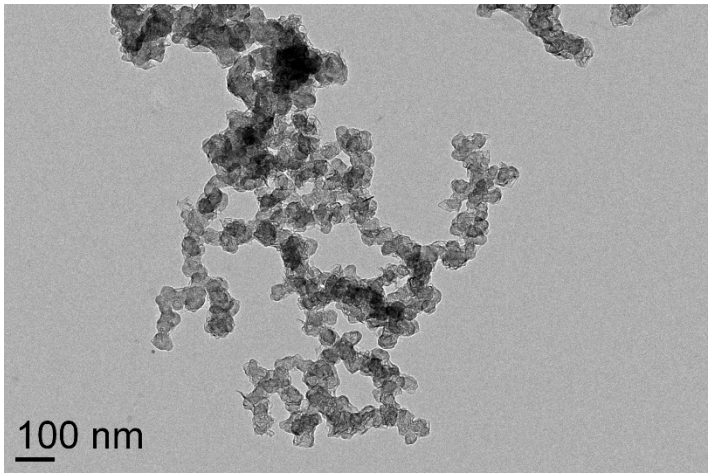
FUEL CELLS

- Alkaline electrolyte
- Proton exchange membrane
- Solid polymer
- Phosphoric acid
- Molten carbonate
- Solid oxide

- AB is only 2-3% of all carbon black production.
- Approved in Military and Aerospace applications.

ACETYLENE BLACK BENEFITS IN BATTERIES





- AB benefits from lower filler loading concentrations than carbon black.
- At equal loading concentrations, electrical conductivity is higher for AB than CB.
- AB's high purity means extremely low metals content which equates to less side reactions and less formula disruptions.
- AB's high surface area and high structure help mix and disperse in the preferred agglomerate form, forming a better electrically conductive network with many contact points.
- Acetylene black's nano-size particles integrate with Graphite's micro-size particles, improving mechanical performance and enhancing the electrically conductive network.

SOLTEX INC.

Over 15 Years of Acetylene Black:

Warehoused in the United States

Distributed Domestically & Internationally

ASTM Quality Control Laboratory Tested

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