

CARBON BLACKS



CABOT

creating what matters

Carbon Blacks for Friction Materials





Cabot is the world leader in carbon black

Carbon Blacks for Friction Materials

■ Cabot Worldwide

- Operations in 18 countries: 42 manufacturing facilities, 8 research and development facilities, 12 technical service centers and 26 sales offices
- Revenue of \$2.6 billion in 2007
- 4.400 employees, 55% outside North America
- <http://www.cabot-corp.com>

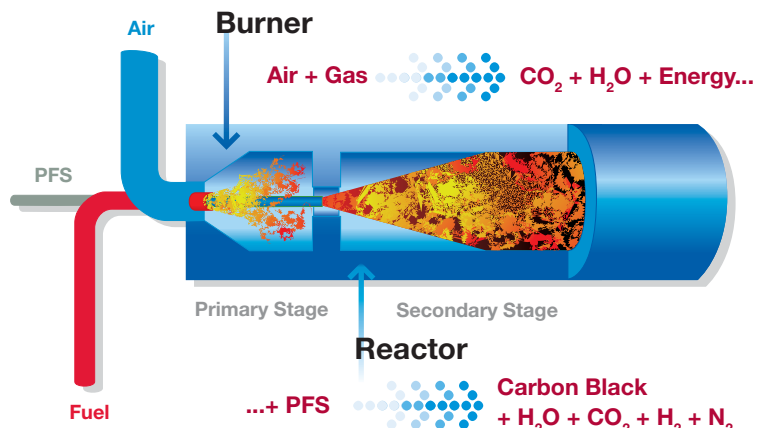
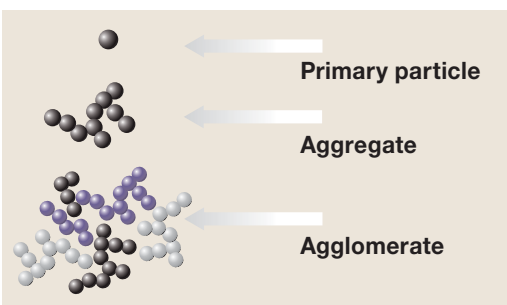
Three main businesses:

- Carbon Black
- Fumed Metal Oxides
- Supermetals



■ Carbon Black: Manufacture, Properties and Characteristics

- 99.5 % of amorphous carbon
- Crystalline structure
- Different levels of particle size and structure
- Black powder generated by the incomplete combustion of aromatic oil residue.



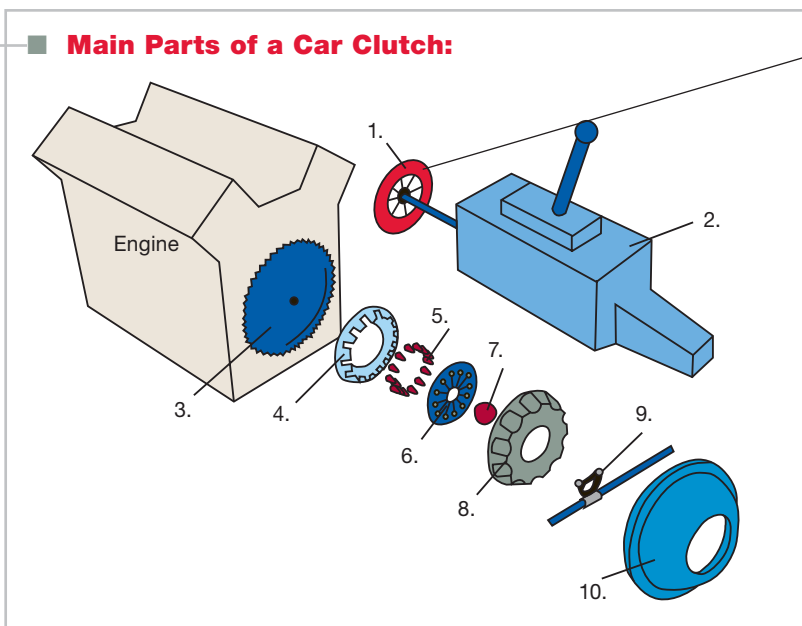
Brake Pads and Clutch Plates

Carbon black is a raw material largely used as a friction modifier in brake and clutch linings. Its basic properties provide thermal conductivity that helps dissipate the heat generated in braking applications. Carbon black also reinforces friction materials, helping to keep their integrity and thus increasing their usage life.

Carbon Black Benefits:

- Friction Stability
- Heat Dissipation
- Uniform Color
- Increased Wear Resistance (increases life of the friction material)
- Improved Noise Reduction (increases internal porosity of friction material)

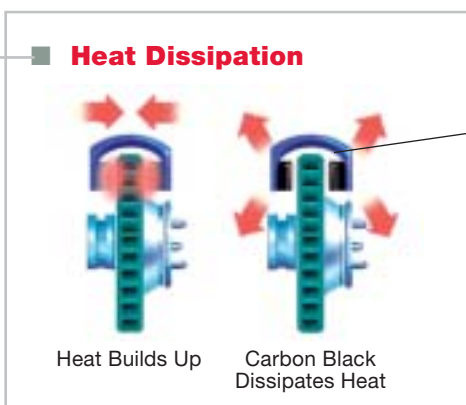
Main Parts of a Car Clutch:



Legend:

1. Clutch Plate
2. Manual Transmission
3. Flywheel
4. Pressure Plate
5. Studs
6. Diaphragm Spring
7. Throw-out Bearing
8. Clutch Housing
9. Release Fork
10. Bell Housing

Heat Dissipation



Grade Recommendation

MONARCH 280
BLACK PEARLS 280



MONARCH 430
BLACK PEARLS 430



MONARCH 570
BLACK PEARLS 570



Low

Thermal conductivity / Wear Resistance

High

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