



Dust Suppression

Improving Safety and Emissions

- Reduce Fugitive Dust
- Help Ensure Governmental Compliance
- Reduce Risk of Fire and Explosions
- Reduce Housekeeping and Transfer Costs
- Increase Equipment Performance and Reliability

A Lot of Companies Sell Chemicals. We Provide Experience and Results.

As an important part of our Total Dust Management product line, Dust Suppression is an area that we take seriously. Benetech understands that suppression is more than chemical. It is a customized program that involves tested and proven suppression products, best-in-class engineered application systems, extensive knowledge in application technology and a qualified, service-driven team of technicians for on-going support and maintenance.

With our comprehensive approach, we are committed to exceeding your expectations in each of these areas, making sure your reduction needs are met.



Superior Chemical Technology

Benetech's renown, top-notch team of Chemists performs product research and development on a continual basis at the on-site Laboratory Facilities. Our chemicals must pass a wide range of tests before they get our seal of approval. The result is a proven product line of chemical suppression that helps you achieve optimum safety and compliance levels.

- Encrusting Agents

Benetech's lines of encrusting agents are designed to produce a semi-permanent shell over your material. This coating protects against rain and wind erosion, reducing your maintenance costs and improving your safety. These products also prevent air from entering, which minimizes oxidation in sealed piles, and reduces the risk of spontaneous combustion. Benetech's encrusting products provide excellent pile sealing, slope control and rail car topper solutions.

- Residual Agents

Our line of residual agents prevent coal from becoming dusty on storage, minimizing both immediate and long term dust issues. Using a full body application, these products reduce or eliminate the clouds of fugitive dust that can occur. These products will help control airborne dust generated during the conveying process and minimize fugitive dust problems associated with stackout, stock piles, railcar and hopper unloading feeders and conveyor transfers.

- Foam Agents

The Benetech family of foaming agents use patented technology to combine foaming and wetting characteristics allowing it to mix easily with water; lowering required moisture for effective dust control and maximum BTU. Applied directly to difficult impact areas, the foam covers and then captures air born dust. Benetech's foaming surfactant blends are used for reducing dust levels occurring above and below ground in the mining, transportation, and processing of coal and other fine solids. Primary uses include reclaim application where minimizing moisture addition to the boiler is critical, crusher windmill and applications where additional moisture can lead to chute pluggage.

- Wetting Agents

Benetech's wetting agents are designed to increase water's ability to wet dust particles and suppress material emissions, allowing you to control dust more effectively with less mess and less moisture. The relatively high surface tension of water (72 dynes per centimeter) is a basic reason why water alone is insufficient to effectively penetrate crushed coal, rock or other fibrous materials. The water surface is too hard, resulting in water particles bouncing off of dust particles instead of wetting them. Adding wetting agents to water reduces the surface tension to 28-36 dynes per centimeters, thereby improving its ability to wet particles, penetrate rock or coal and reduce dust. The end result is less equipment at fewer application points and reduced installation costs. These surfactants are the best technique for quickly and easily suppressing dust in rapid material movement applications such as conveyor transfers; rotary car and bottom dump rail car unloaders and ship and truck unloading hoppers.

- Fly Ash Conditioners

Treatments with these cost effective conditioners significantly reduce fly ash. They work as a set retardant, delaying hardening and decreasing strength. The result is easy and efficient clean up of pug mills. A simple hose will remove ash for transfer instead of labor intensive, high energy removal methods.

Chemical dust suppression is recognized by the EPA as "Best Available Control Technology (BACT)" in a variety of material handling applications.

Special Application Chemicals:

- Coal Flow Enhancer (CFE)
- Fireade
- Freeze Gas Conditioners (FGC)



Proven Application Techniques

When it comes to Dust Suppression Systems, our knowledge is unmatched. Our approach has resulted in successful year round dust control for over 880 million tons of coal with minimal moisture. We have installed hundreds of systems to an extensive list of customers and are the industry leader in meeting the material handling challenges of PRB Coal. Our experience and knowledge allow us to develop superior and diverse application technologies found nowhere else.

Applications

- Pile Sealant
- Rail Car Topper
- Truck Top Sealants
- Slope Encrusting
- Stackout Suppression
- Transfer Points Suppression
- Rail Car Unloading
- Conveying Systems
- Haul Road
- Anti Oxidizers



State-of-the-Art System Design

For over 25 years, Benetech's engineering team has been dedicated to the custom design, fabrication and installation of Dust Suppression Systems. Our automated application systems are reliable and easy to maintain. Once our systems leave the shop, you can be sure that they will operate in the most extreme conditions; maximizing cost effectiveness and performance.

Chemical Dust Control Systems

- BenePaks
- Sheds
- Piping
- Spray Manifolds
- Foam Generators
- PLC/HMI Controls
- Yard Sprays
- Water Cannons



Outstanding Maintenance

Our service sets us apart. Benetech's fully trained field technicians are on call 24/7 providing on-site technical service and on-going maintenance. They are fully equipped at all times with the tools and replacement parts needed to keep your systems running properly and to ensure your material handling needs are met.

Support & Maintenance

- Equipment Startup & Personnel Training
- System Performance Analysis
- Dust Monitoring
- Annual Management Reports

Proven Effectiveness & Satisfaction

Dust is a pervasive problem when handling many bulk materials such as coal, interfering with all aspects of your operation. Benetech's Dust Suppression Systems help you take control of dust while improving efficiency. Our effective, low cost solutions integrate customized levels of operational control and help you meet OSHA regulations.

For over 25 years, Benetech's engineering team has been dedicated to the design, fabrication and installation of Dust Suppression Systems. Our technicians have maintained and strengthened solution implementation by working with our customers to ensure safe operation, system efficiency and compliance optimization. Our approach has resulted in successful year round dust control for over 880 million tons of coal with minimal moisture. Our effective, low cost solutions integrate customized levels of operational control while helping you meet OSHA regulations, reduce housekeeping costs and increase operational efficiency.

Through engineered innovations, we have become the leader in Dust Suppression products and chemical applications to the utility, mining, steel cement and aggregate industries.



Benetech helps clients around the globe increase profits while improving the safety of their operations through risk mitigation, asset optimization and fuel flexibility. Contact us today to learn how we can help you take advantage of Benetech's turnkey capabilities.



Before/After Benetech Dust Suppression System



Suppression Products and Chemicals at Work



State-of-the-art Design Components