



DusTech Improves Air Quality for a Construction Site

MetaFLO's dust suppressant helped a construction site improve air quality through effective dust suppression, helping save costs, increase productivity, and benefit the environment.

CASE STUDY



PROJECT

DUSTECH – DUST SUPPRESSION FOR CONSTRUCTION SITE

Alto Horizonte, GO - Brazil

DUSTECH

MetaFLO Technologies

Challenge

Excessive airborne dust particulate matter raises numerous health and environmental concerns during construction projects and civil works. As a result, effective dust suppression is becoming mandatory to reduce the harmful effects of dust on the environment and the health of workers and surrounding communities. Traditional methods for dust suppression usually require large quantities of water, utilizing 5-9 water trucks per day—which can be costly.

Solution

MetaFLO first applied 3.0% of DusTech biopolymer; diluted directly in a water truck and applied to the site, with a clay soil characterization. DusTech promotes greater agglutination between soil particles, significantly reducing dust suspended in the air and improving air quality. It creates a layer on the surface of the soil that reduces the release of fine particles into the air through a clumping process. 17 hours after the first application, a second layer of DusTech was applied using a 2.0% dosage.

Outcome

- ✓ **COST SAVINGS**
Fuel consumption and emissions of polluting gases were reduced by 46% thanks to DusTech, and costs for labor and machinery went down by 43%.
- ✓ **WATER SAVINGS**
160,000 liters of water were saved per day, representing a 53% reduction in water consumption throughout the project. The need for additional moistening was also reduced.
- ✓ **QUALITY OF THE ROAD**
Soil agglutination was enhanced, while safety and traffic visibility also increased. Most importantly, air quality improved so that employees and nearby communities could breathe better.



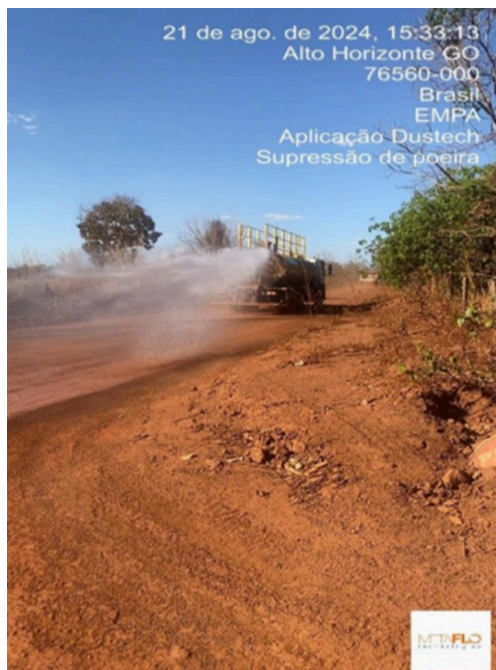


Figure 1: Applying DusTech



Figure 2: After Dustech