

Reduces Dust Emissions by Over 96%

Overview: Reducing dust emissions generated on the runway is critical to the safety of pilots and aircrafts. Dust emissions are critical fines of the runway aggregate and if lost, require costly aggregate replacement. Based on Midwest’s experience, when dust emissions are lowered by 96% (compared to water) as seen in the lab testing when using EK35, the life of the runway will be extended significantly which improves pilot and aircraft safety.

The U.S. Army Corps of Engineers performed laboratory testing on 12 different dust abatement products to determine the most effective products and application rates to reduce dust emissions under simulated flight conditions. Testing was performed in an air impingement chamber where treated test specimens were subjected to 150mph air blasts while dust concentrations were recorded at 1 second intervals inside the air impingement chamber. Data was collected during the 30 seconds of air impingement and 120 seconds subsequent to the air impingement to observe the rate of settling dust within the test chamber. The lower the average optical concentration achieved during testing equates to better reduction in dust emissions and performance.

Test Results:

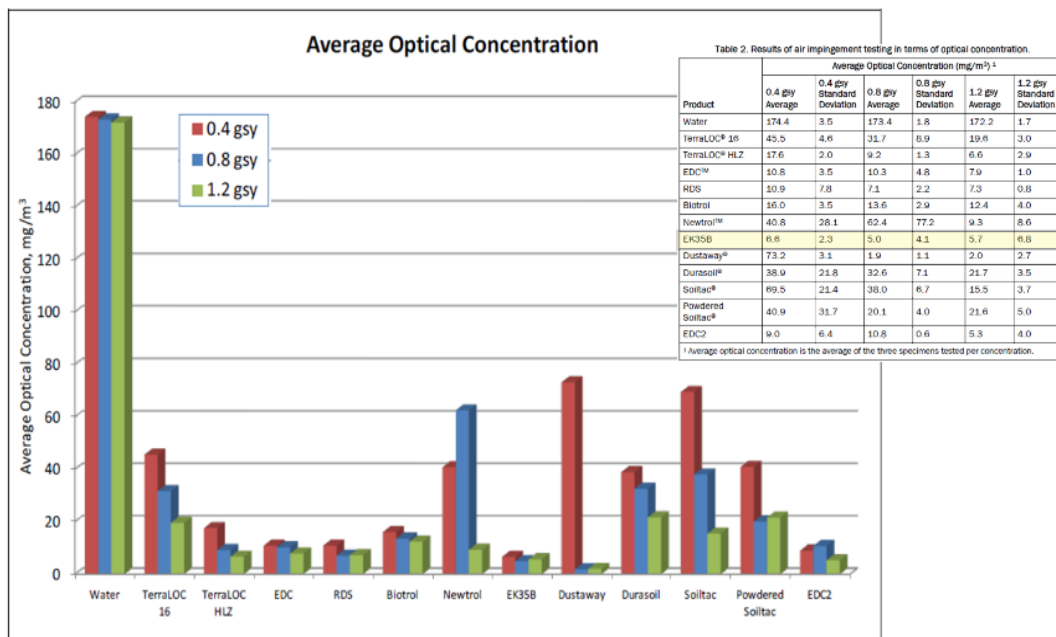


Figure 8. Air impingement results in terms of optical concentration during testing.

Conclusion: Under simulated flight conditions, EK35 test specimens achieved an average **reduction in dust emissions of over 96%** compared to the test specimens treated with water only at each application rate tested.