

Improves Safety of Pilots and Aircrafts

- Overview:** Pilot and aircraft safety is of utmost importance on remote gravel runways. Dust emissions, surface deterioration and Foreign Object Debris (FOD) are just some factors that result in hazardous conditions during take-off and landings. By minimizing/eliminating the effects of these, pilot and aircraft safety is significantly increased. Below are just some ways that Midwest's Semi-Permanent Gravel Runway system improves the safety of the pilots and aircrafts.
- Reduces Dust Emissions:** Lab testing conducted by the U.S. Army Corps of Engineers has proven that EK35 can reduce dust emissions by up to 96% compared to water alone under simulated flight conditions.
- Field testing performed by the University of Alaska Fairbanks (UAF) has shown EK35 can reduce dust emissions by up to 97% two years after application and up to 91% four years after the application.
- Reduces Surface Erosion:** Lab testing conducted by the U.S. Army Corps of Engineers has proven that EK35 can reduce surface erosion by up to 98% compared to water alone under simulated flight conditions.
- Reduces FOD:** The products used in Midwest's Semi-Permanent Gravel Runway system are considered "soft-crust dust palliatives". The U.S. Army Corps of Engineers states that soft-crust palliatives do not create FOD since they do not form brittle physical bonds like hard-crust palliatives. In addition to the soft-crust nature of these products, they have proven (through 20 years of experience) to lock fines and aggregate to the surface, therefore, keeping them from becoming dislodged and potentially airborne during aircraft movements.
- Improves Braking:** The Semi-Permanent Gravel Runway system produces a bound pavement-like surface after compaction and exposure to traffic. This bound surface aids in aircraft movements including improved braking during landing as indicated by the skid marks generated on treated runways.

Improves Safety of Pilots and Aircrafts



Conclusion:

The Semi-Permanent Gravel Runway system has been repeatably proven in the lab and field to reduce dust emissions, surface erosion/deterioration and FOD while increasing braking of aircrafts, therefore, creating a safer runway for pilots and aircrafts.