

Reduces Maintenance Activities and Life Cycle Cost

Overview:

Runway maintenance costs add up quickly especially if required maintenance activities are neglected or delayed until re-surfacing is the only option. Routine maintenance such as grading and compaction can be required on a weekly basis on untreated runways. Midwest’s Semi-Permanent Gravel Runway system has been proven to reduce maintenance activities by maintaining the as-constructed runway surface. This not only decreases maintenance activities but also extends the service life while lowering the life cycle costs compared to untreated runways.

Reduces Maintenance:

Transport Canada conducted a study on EnviroKleen which was presented at the 2002 SWIFT Conference. This study evaluated the performance of EnviroKleen on the Kuujuaq Airport in Quebec, Canada during which time all of their aircraft traffic (including B-737 traffic) was diverted to a gravel runway due to the reconstruction of the main runway. The gravel runway was treated with EnviroKleen to reduce dust emissions and surface deterioration.

During this study Kuujuaq runway personnel noticed that “Periods between grading operation was roughly twice as long on the treated surface over a one year period”, therefore cutting there grading costs and time by 50%. The study concluded with the following statement, “Dust abatement application product on gravel runways seems to have a certain potential in improving overall service levels, reducing maintenance costs and increasing the life expectancy of construction and rehabilitaiton works.” Other runways treated with Midwest’s Semi-Permanent Gravel Runway system

Reduces Life Cycle Costs:

The performance of gravel runways are determined by proper construction, maintenance and fines preservation. By using Midwest’s Semi-Permanent Gravel Runway system, life cycle costs will be reduced through:

- Reducing runway maintenance activities such as grading and compaction
- Reducing aircraft maintenance fees associated with FOD
- Preserving critical fines and aggregate on the runway surface and extend time between costly aggregate overlays
- Reducing surface deterioration and damages

Based on experience, Midwest estimates that the total cost over ten years will be up to \$1.9 million less than if you were to not treat your gravel runway.

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL
Estimate of current maintenance, repair, and replacement costs for the runway:										
361,930	361,930	361,930	1,216,080	361,930	361,930	361,930	1,216,080	361,930	361,930	5,327,600
Midwest’s projected costs of maintenance, repair, and replacement costs using EK35B:										
313,198	313,198	313,198	441,320	313,198	309,453	309,453	437,576	309,453	309,453	3,369,495
Customer’s projected savings using EK35B:										
48,733	48,733	48,733	774,761	48,733	52,478	52,478	778,505	52,478	52,478	1,958,106

Conclusion:

The use of Midwest’s Semi-Permanent Gravel Runway system effectively reduces the frequency of maintenance activites when compared to untreated runways. Semi-Permanent Gravel Runways can save up to \$1.9 million over a period of 10 years compared to untreated runways.

