



AIRPORT GRADE STEELGUARD



An ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Company



AIRPORT PAVEMENT

Do you know what happens when a runway plays host to thousands of airplanes every week? Asphalt airfield pavements particularly runways are subject to entirely different stresses like air traffic counts, fuel spillage, weathering exposures (Sun, UV rays & rain) Jet blasting or torching by jet engines along with heavy duty usage results in the deterioration of asphalt pavements. It slowly begins to weaken, resulting in extracting aggregate particles and binder. Over a time, this leads to the loss of larger aggregate particles, cracking, water penetration, and ultimately failure.

To prevent such issues, airports conduct regular maintenance checks and repair works, spending immense amount of funds and time.



AIRPORT GRADE STEELGUARD BEING APPLIED AT ALTA SIERRA AIRPORT, CALIFORNIA

AIRPORT GRADE STEEL GUARD APPLIED AT SANTIAGO INTERNATIONAL, CHILE



DETERIORATING SURFACE



AIRFIELD PAVEMENT MANAGEMENT PROGRAM

The solution to the problem, as suggested by most of the engineers, is to mill & overlay hot mix asphalt over the existing surface. However, doing that would result in airports incurring huge expenses.

In a time when aviation companies, air routes, and the world's population are ever-increasing, isn't there a need for the extension of the existing pavements' life? Doing so would avoid the new runway overlay.

One such cost-effective and time-saving technology is AGSG – Airport Grade SteelGuard giving longer life and safer operations.

AGSG - AIRPORT GRADE STEELGUARD

Airport Grade SteelGuard (AGSG) is an asphalt protective coat application designed to preserve and extend the life of existing asphalt surfaces. AGSG has been used on runways, taxiways and apron surfaces at many airports throughout the world. AGSG has high adhesive characteristics, which when combined with polymer modifiers and varied quantities of solids to suit the condition of individual airport pavements, AGSG seals the surface by thus eliminating the FOD generation and reduces the deterioration rate of asphalt based pavements.

Airport Grade SteelGuard (AGSG) is a non-toxic and cost effective treatment that provides a weather-proof coat to extend the life of existing pavement and prevent its deterioration in a highly-advanced way,



CASE STUDY: SANTIAGO INTERNATIONAL AIRPORT

As part of a two-year-long trial at Santiago International Airport, Chile. AGSG was applied at various locations like the runway, aprons and taxiways. This mix was designed in order to provide sufficient binder to “lock-in” the existing aggregate layer whilst ensuring an adequate skid resistance.





MARIA DOLORES AIRPORT IN LOS ANGELES, CHILE



AERIAL VIEW OF MARIA DOLORES AIRPORT IN LOS ANGELES, CHILE





SURFACE 2009



AFTER APPLICATION



Treated

Untreated

AFTER TWO YEARS



NO LANDING SCUFF DAMAGE

AGSG' technology at Santiago International Airport in Chile resulted in remarkable success! The Public Works Department recommends the product across all airports in Chile, which meant more work, more challenges, and more success!

CASE STUDY: LA FLORIDA AIRPORT — AN UNPRECEDENTED CHALLENGE

The La Florida Airport in Chile services the lovely tourist city of La Serena. During summer, the number of tourists flying in increases. This directly results in the two-kilometer-long runway showing signs of ageing.

The airport's requirements made this work quite difficult since most of the work had to be done at night during a relatively slow four-hour period. This task was made even tougher by the fact that this project had to be undertaken in the month of October, when temperatures range from 6 to 10 degrees Celsius.







CASE STUDY: BALLARAT AIRPORT, AUSTRALIA

The Ballarat Airport in Victoria, Australia is one of the busiest airstrips in the region. As the runway surface aged, loose stones were beginning to cause significant damage in and around plane propellers. Airport management turned to Airport Grade SteelGuard to restore the runway to its former glory.

Airport Grade SteelGuard was initially applied to the landing zone of the north south runway in 2009 as a trial. The mix was designed to provide additional binder to “lock-in” the existing aggregate layer whilst ensuring an adequate skid resistance.





“The Conditions were an extreme challenge” .“The mix was specially designed to ensure the material would dry in time for the first flight at 7am. This usually wouldn’t be a problem however when you include fog, high humidity, a damp surface, very cold temperatures, a new additive, and doing the work in the dark made this job difficult.”

The result of this unprecedented challenge is a runway that now eliminates FOD generation. AGSG has also improved the friction of the Runway surface. Before application the runway had an average Coefficient Friction (BPN) rating of 0.57. After application the rating was 0.72!





TOTAL COVERAGE AT MARIA DELORES AIRPORT IN LOS ANGELES, CHILE



MACKEY AIRPORT QUEENSLAND, AUSTRALIA





SAN FRANCISCO

CASE STUDY: CSIA, MUMBAI, INDIA

The Chhatrapati Shivaji International Airport (CSIA)-GVK-MIAL is one of the busiest airport in India having over 900 flights movements each day with Single Runway in Operation.

The unprecedented challenge is that both the runways are intersecting each other and due to intensive use of the same and constrained time schedule for the maintenance, the runway started showing signs of aging with loose aggregates resulting from raveling on Asphalt surface. AGSG was the desired solution for the runway pavement.

The use of this technology was indeed a remarkable achievement.





CHHATRAPATI SHIVAJI INTERNATIONAL AIRPORT, MUMBAI INDIA

SAFE RUNWAYS SAFE FLYING

