



# ATLANTA HARTSFIELD- JACKSON INTERNATIONAL AIRPORT SOLAR WINDOW FILM PROJECT BY NGS



## PROBLEM

In 2018, Delta Airlines remodeled concourses A, B, T, and half of C at the Hartsfield-Jackson Atlanta International Airport. This modernization project included increasing total glass by 75%, which also dramatically increased solar load on the concourses, creating customer and employee comfort concerns with added heat and glare.

Delta Airlines is the world's most awarded airline, known for their outstanding passenger experience and customer service. The reason they have this reputation is because they don't overlook details when it comes to passenger comfort.

When Delta identified that the increased glass would potentially change the environment for passengers and employees in their concourses, they saw an opportunity to soar above their competition. That's where the experts at NGS came into the picture: to ensure the continuation of passenger and employee satisfaction and comfort at the Atlanta International Airport.

"Any time you increase the glass area, you also increase solar transmission," explained James Beale, Managing Partner at NGS. "For this kind of project, 3M Prestige 40 Exterior spectrally select film is a great fit because it offers the highest ratio of heat gain reduction to light transmission on dual-pane tinted glass. In essence, it reduces more heat than eliminates light – and that's what you want."

## SOLUTION

In fact, 3M Prestige 40 exterior-applied film seems almost custom made for Hartsfield-Jackson's requirements. As a multi-optical layer film technology that is metal free, 3M Exterior Prestige is naturally resistant to exterior-application-related harsh conditions, jet fuel, and thrust. Its zero-reflectivity increases the safety for pilots as they maneuver through the runways and taxiways. Best of all, it selectively eliminates certain parts of the solar radiation spectrum, such as UV rays and infrared, while minimizing visible light reduction.

For the airport and Delta, this resulted in reduced heat gain by 43% and glare reduction of 54%, yet maintained the aesthetics of the new windows in Delta's concourses. Energy modeling also showed that the film would reduce carbon emissions by approximately 226 tons annually, and the final results of the project earned Atlanta International an energy rebate from the power company.

However, before they achieved these final results, they had to overcome the obstacles of an installation at the busiest airport in the world. A federal airport requires special handling due to its security restrictions, which means that there's no such thing as a "simple" film installation at an airport. As experienced airport installation experts, NGS was definitely the right team for the job.

Hartsfield-Jackson Atlanta International Airport's high traffic mandated a specific work schedule, requiring NGS to begin work from 10-11 PM each night. The work also required them to organize 4-5 crews a night, each with specialized safety training, and to coordinate transportation for the crews as well as their equipment: boom lifts, scaffolds, scissor lifts, and more. In addition, NGS created custom artificial lighting rigs on their lift baskets to effectively complete the work during these difficult hours.

To further futureproof the already-durable film from the airport's harsh environment, NGS went above and beyond and sealed the edges of the film to ensure longevity and ROI.

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and reduced glare," said Beale. "At the time, it was the largest application of 3M Prestige 40 Exterior anywhere in the world on a single project – until we broke that record last year with a 260,000 square foot installation on a two-campus, eight-building project."



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Managing Partner, NGS

