

Project Report

American Airlines O'Hare Hangar 2

Chicago, IL, USA



Architect: Ghafari Associates

Photo courtesy of Ghafari

KALWALL®

high performance translucent building systems

KALWALL SPECIFICATION:

Panel: 2.75" | 70 mm

Grid core: shoji

Exterior FRP: crystal

Interior FRP: white

System finish: custom KCRF

U-Value: .14 | .78 Wm²K

Solar Heat Gain Coefficient: .17

Visible Light Transmission: 12%

WHAT IS KALWALL?

A translucent, structural sandwich panel that provides:

Glare-free, balanced daylighting

Superior thermal performance

Energy + electricity saving

Low maintenance life cycle requirements

Safety + security through visual privacy

Durability + graffiti / vandal-resistance

Hurricane, explosion venting + blast rated options



© CABOT Corp

For unparalleled thermal performance in translucent daylighting, consider specifying Kalwall with **CABOT's Lumira®** aerogel insulation. Available in 2.75" (70 mm) panel formats up to: 4' x 12' (1200 mm x 3600 mm) and 5' x 10' (1500 mm x 3000 mm) maximum.

American Airlines O'Hare Hangar 2, Chicago, IL, USA

GOING BIG AND BRIGHT WITH RECORD-SETTING HANGAR

There is nothing small about Chicago's O'Hare International Airport. As the sixth-busiest airport in the world and the hub of two major U.S. airlines, O'Hare is big, averaging more daily take-offs and landings than any other airport in the world. But even by O'Hare's standards, the American Airlines O'Hare Hangar 2 is really big.

The hangar, unveiled in 2019, is over 600 feet long, 300 feet wide and 120 feet high. It took almost three years to build, cost \$251 million and is recognized as the longest clear-span, dual entry airline hangar in the world. The signature feature is two bookend 'light bars' capped by Kalwall® translucent sandwich panels.

Kalwall allows glare-free natural light into the building and provides superior thermal performance. The lightweight panels also fit seamlessly with the building's primary steel supports, which positively impacted the bottom line since there was no need for a secondary structural system.

The hangar was designed by Ghafari Associates, an international architectural and engineering firm regarded as one of the top airport designers in the world. "Our design approach integrates structure, architecture, lighting aspects, sustainability," says Joseph Gonzalez, global design director at Ghafari.

Kalwall panels were an ideal solution because they provided a striking architecture feature and allowed Ghafari to best utilize daylight harvesting to reduce overhead lighting and lower energy costs. To help minimize the glare from the sun reflecting off the building, which is important since it is located near active runways, Kalwall provided a custom exterior face to match the metal building panels.

The distinct look of Hangar 2 not only conforms to the O'Hare modernization program, but has improved the airline's aircraft and maintenance operations since it has operable doors on both ends to move planes in and out faster.

In this case, bigger is better.

Awards:

Award of Merit for Best Projects of 2019

Engineering News-Record Midwest Magazine

Honorable Mention

2019 Airports Going Green Awards



Kalwall®, Kalcurve® and Skyroof® are registered trademarks of Kalwall Corporation. Lumira® aerogel is a registered trademark of Cabot Corporation. © 2020 Kalwall Corporation

Kalwall Corporation | 1111 Candia Road | PO Box 237 | Manchester, NH 03105 USA | 800.258.9777 | KALWALL.COM