

CASE STUDY

DUBAI TERMINAL
DUBAI AIRPORT

Six-Sided Sealing from Aqua Mix Preserves Beauty of Stone in Dubai's New Terminal

Dubai International Airport is one of the world's fastest-growing airports, and is in the midst of a long-term plan for expansion. Terminal 3 was recently completed after three years of construction, and features 3.8 million square feet of a Brazilian stone called Panha Fragola Corcovado, or "PF". PF presented a serious sealing challenge because the stone contains soluble pyrite (an iron sulphide) which can absorb water from the mortar bed during curing and cause severe discoloration. IKAN, Inc, a local distributor of Aqua Mix care and maintenance products, recommended a six-sided sealing solution in order to protect the stone from moisture throughout the 28-day curing process.

Extensive testing was conducted by Aqua Mix technical experts, with two new products that were not even on the market yet, UltraSolv® and EconoSeal™. First, local materials were used in order to duplicate the installation conditions, while confirming with control groups that the discoloration from soluble pyrite would in fact occur without proper sealing.

Next, IKAN performed submersion and mortar bed tests with PF stone sealed on all six sides with EconoSeal and UltraSolv. Both sealers performed impressively, keeping water at bay for the required 28 days and preventing discoloration. Finally, tests were done to prove that neither sealer would compromise shear bond strength.

After successful testing, EconoSeal was selected for the initial six-sided sealing, with UltraSolv specified for final sealing of the installed surface. Stone was laid out, sealed on six sides with Econoseal, and cured for 24 hours prior to installation. UltraSolv was applied to the finished surface just prior to completion of the entire terminal. During this period both UltraSolv and EconoSeal products were launched for sale internationally.



IKAN assisted the primary stone contractor, Al Habtoor, throughout the 2-year process, providing onsite support, quality control and education for the ever-changing staff of over 400 tradesmen imported from other countries to work on the project. The result is a stunning, pristine installation that has no trace of soluble pyrite or any other staining. In fact, the sealing project was so successful that Aqua Mix sealers, from Custom Building Products, will be used on the next new terminal at Dubai International Airport, already underway.

Aqua Mix has a 25+ year history of leading the global stone and tile industry with innovative care and maintenance solutions utilizing unique, water-based formulas. As part of Custom Building Products, North America's largest provider of tile and stone installation systems, Aqua Mix products continues to expand into a worldwide offering of a trusted, single source supplier of over 500 products for tile and stone installation systems.

Custom Building Products operates 14 North American distribution sites and 30 other worldwide locations to support professional product performance along with unsurpassed innovation, a highly educated and experienced technical staff and unparalleled customer support.



Custom is proud to bring to customers innovative solutions to any tile or stone installation project, including products that contribute to "Leadership in Energy and Environmental Design" (LEED®) certification. Representatives are available to planning, specification writing, product application, testing, and installation information, to ensure each project goes smoothly with outstanding results.

PROJECT:

Terminal 3, Dubai Airport, Dubai, U.A.E.

OWNER:

Dubai Civil Aviation (DCA) & Dubai Municipality

ARCHITECT:

Aeroports De Paris International (ADPI) (Dubai) & Dar Al Handasah Consultants (Shair & Partners) (Dubai)

GENERAL CONTRACTOR:

Al Habtoor Engineering-Murray & Roberts JV (HMR) (Al Habtoor Group) (Dubai)

STONE CONTRACTOR:

Dar Al Rokham LLC

STONE SUPPLIER:

Campolonghi, Henraux, Technostone

SEALER DISTRIBUTOR:

IKAN, Inc.

SEALER MANUFACTURER:

Custom Building Products



*Voted
Most Preferred Brand
of Sealers and Cleaners
by NTCA.*



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