

Stonhard offered lining solutions in containment areas and traffic aisles to withstand specific chemical exposures and traffic conditions



Products used at Embraer Portugal S.A.:
 Stonchem® 602 • Stonchem® 678 • Stonchem® 778 •
 Stonchem® 878

Embraer S.A. is a Brazilian aerospace conglomerate that produces commercial, military, executive and agricultural aircraft and provides aeronautical services. It was founded in 1969 in São José dos Campos, São Paulo, where its headquarters are located. The company is the third largest producer of civil aircraft, after Boeing and Airbus.

In Évora (Portugal), in the Aeronautical Industry Park of Évora, Embraer Portugal was inaugurated on September 21st, 2012, despite having been in operation since July 2012, and is part of the company's internationalization strategy for the market European.

- Embraer Portugal has three companies with different areas of activity:
- Embraer Portugal Estruturas Metálicas SA uses technologies with a high level of automation to build, in aeronautical aluminum, the wing linings and vertical warping of the KC-390 military aircraft, the wings of the Legacy 450, Legacy 500, Praetor 500 and executive aircraft Praetor 600, wing liners and stringers for the E-2 commercial aviation line and parts for the E-jets commercial aviation line.
 - Embraer Portugal Estruturas em Composites SA produces, in carbon fiber, the leggings of the Legacy 450, Legacy 500, Praetor

500 and Praetor 600, the horizontal stabilizer of the KC-390 and E-2, and also parts for E- Jets.

- At Embraer Portugal S.A., the support services for the factories are concentrated, namely advisory services for Administration, Financial, Logistics and Purchasing, Information Technologies, Human Resources and MASS - Environment, Health and Safety. Inaugurated in 2014, it also has an Engineering and Technology Center responsible for Product Development Engineering.

All works were completed during the first few months of the COVID-19 pandemic where lodging and other accommodations were not easily accessible from the job site. Stonhard's installers did an excellent job in navigating the COVID environment, respecting all safety procedures in place by the customer and working through a challenging time.

The existing containment area had been coated with a polyurea in 2012 that showed swelling, wrinkling, and delamination- all indicators of severe chemical attack. The chemicals in question included 98% sulfuric acid, 68% nitric acid, and 50% sodium hydroxide. The customer also had heavy forklift traffic in some areas.



The Stonhard Difference

Stonhard is the unprecedented world leader in manufacturing and installing high-performance polymer floor, wall and lining systems. Stonhard maintains 300 Territory Managers and 175 application crews worldwide who will work with you on design specification, project management, final walk through and service after the sale. Stonhard's single-source warranty covers both products and installation.

Having a lining that is chemically resistant to the chemicals it is exposed to is only one of the criteria Stonhard considers when offering a Stonchem lining solution. Stonhard made inquiries into the chemicals, concentrations, temperatures, exposure times, anticipated traffic, and normal cleaning procedures used in each area. After considering all of these factors, Stonhard was able to offer the best solution for each area, providing the best protection for the customer with the most value.

With the support of the technical department multiple Stonchem lining systems were selected based on the area, including Stonchem 602, 678, 778, and 878. These Stonchem systems range from high-build novolac epoxy (600 series) to mortar-based, fiberglass-reinforced Polyester (700 series) and Vinyl Ester (800 series) resin chemistries, each suitable for specific chemical exposure parameters. All lining systems were applied only after full removal of the existing lining system to ensure correct adhesion to the concrete substrate.

Embraer has several areas in a pickling facility (totaling 2,075 m²) where routine activities left process chemicals and pickling by products on the floor.

