



Description

Located in Miami Beach, the two-storey, 31,000+ square-foot “retail experience” is impressive. Its south and west facades are wrapped by a unique brise-soleil made with 180 Ductal[®] perforated panels, designed to incorporate classic Nike patterns. The result is an intricate casting that allows light to filter through to the interior while providing shade outside, creating a distinctive synergy with the surrounding promenade.

Challenge

Selection of materials was an important part of the design process and, since concrete is one of the most common building materials used in South Florida and sub-tropical commercial projects, the design teams explored the various applications and finishes. As a result, the most innovative and visible use of concrete is the store's brise-soleil, which not only met requirements for shading and visibility; it provided an opportunity to embed pieces of the company's product innovation and heritage into the pattern of the façade.

Optimization

From a global brand integrating with a local building culture to the exploration of new ways of expressing retail function through architectural form, to creative use of materials and experiences which make up the consumer's experience, this project proves how innovation can play a key role in the future of brick and mortar retail. Plus - in an area frequently exposed to extreme heat and tropical storms, the Ductal[®] Envelope facade will withstand harsh conditions for years to come.

Application

For production of the perforated panels, the precaster (DEX Industries) used techniques typical of those employed for bronze casting. The use of 3D printing and Climate Modeling technology was critical for this project's design process; used during preliminary studies, as well as for production of the final mold for fabrication. The molds for the Nike “Swoosh” logo were produced through a complex process called “lost wax capture”, while the other molds were produced by creating a positive on the CNC machine and then casting the reverse in the rubber.