

DEX-O-TEX[®]

RESULTS

Problems Solutions

Project:
University of San Diego / Donald P Shiley Center for Science and Technology

Architect:
Carrier Johnson Design Group

Contractor:
Jason Stratton / JW Stratton Specialty Coatings

Systems Used:
**VaporControl 100, SC Membrane,
Cheminert Terrazzo 18, Cheminert HD**

The Opportunity

The Donald P. Shiley Center for Science and Technology, located at the University of San Diego (USD), is a state-of-the-art teaching facility dedicated to the University's departments of Biology, Chemistry, Physics and Marine and Environmental Studies. Its breathtaking views overlooking both Mission Bay and San Diego Harbor provide an inviting setting for students, faculty and visitors alike.

This new 150,000 square foot facility is an architecturally dramatic four-story structure housing 73 high-tech laboratories and classrooms. Remarkable architectural features have been created throughout the building depicting the Spanish Renaissance history of the campus. The Carrier Johnson Group (San Diego, CA) designed the facility, and focused on ensuring that the structure emulated the University's



renowned standards of excellence. The form and layout of the building were created to ensure efficient functionality with the construction and finishing materials selected based on their ability to provide sustainability, longevity, durability, cleanability, and aesthetics.

USD understands the value of quality products and services and chose Dex-O-Tex's Scientifically Superior™ Technologies for concrete protection, functionality and aesthetics for their new campus center's flooring. USD charged the architect, Carrier

Johnson, and Rudolph and Sletten, the contractor for the project, with selecting the most durable flooring systems that would provide exceptional wear, easy maintenance with design flexibility to create an inspiring educational environment.



The Analysis

The design/build team began their search for high-quality products and skilled subcontractors that could replicate the ornamental architectural features. After meeting with Dex-O-Tex's Regional Sales Representative, USD determined that Dex-O-Tex's comprehensive product line was the right choice. The advantage of working with a single resource manufacturer that could meet the project's breadth of requirements for concrete protection, crack isolation, vapor control, waterproofing

and finished decorative flooring systems provided opportunities for a 'seamless' Finishing Phase of the project and contributed to on-time project completion. Jason Stratton, of JW Stratton Specialty Coatings, a highly skilled expert in waterproofing, intricate specialty flooring, and terrazzo applications was chosen to install the finished floor to ensure a high-quality finish.

The Direction

This two month installation began with proper preparation of the new concrete substrate by bead blasting the entire surface to ensure proper adhesion of the flooring system. Then, Dex-O-Tex's VaporControl Primer 100 was applied to provide negative side vapor transmission suppression. This fluid-applied epoxy moisture mitigation system reduces or eliminates the effects of moisture vapor transmission and will withstand moisture vapor emission rates (MVER) of 15 lbs/1000 sq ft/24 hrs per ASTM F1869. VaporControl Primer 100 provides excellent penetration and adhesion to concrete and is recommended for use under impervious, moisture sensitive, non-breathing floor systems that cannot withstand moisture vapor transmission levels with MVER



rates above the floor covering manufacturer's recommended levels.

Dex-O-Tex's Cheminert SC Membrane was then installed for crack and control joint isolation. Fiberglass reinforcement was imbedded to provide dimensional stability and crack/control joint bridging to suppress or limit reflective-cracking in Dex-O-Tex system's due to dynamic movement from thermal or seismic loads. This hybrid epoxy/urethane system has an exceptional fire rating. It is solvent-free and self-extinguishing (ASTM D635), making it compliant for indoor applications.

The finished flooring installation began with the application of Cheminert HD as a seamless cove base transitioned into four-foot wainscoting. Cheminert HD is a monolithic, high density, fluid applied seamless epoxy system

that can be used as an integral sanitary cove base. Cheminert HD is chemically inert after cure and is a non-food source for microorganisms (ASTM G21 Passes). In addition, this system is resistant to a wide range of acids, alkalis, salts, solvents and food byproducts, making it an ideal solution for USD's Biology Chemistry, Physics and Marine and Environmental Studies facility. Cheminert HD offers a rapid installation process at a moderate cost, which contributed to completing the Finishing Phase of the project on-time and on-budget.

After ensuring that all construction and control joints were honored with divider strips and that terminations were properly keyed-out, the JW Stratton crew began installation of the finished decorative flooring using Dex-O-Tex's Cheminert

Terrazzo 18 thin-set epoxy flooring system that incorporates marble chip or other aggregates to achieve a seamless, durable, easily cleanable surface with unlimited aesthetic design

capabilities. It is usually installed at 3/8 inch (9.52mm) finished thicknesses to accommodate the aggregate particle size and is available

in a wide range of standard background colors and custom color options virtually unlimited.

The Center's main lobby is a breathtaking display of the durability and design capabilities that can be achieved with the Cheminert Terrazzo system. The patterns throughout the floor are colorful and elaborate. They were specifically designed to complement the ornate exterior and the central feature inside the lobby – The Experiment – a unique piece of lighting art created by USD Fine Arts Professor David Smith with fiber-optic cables that are suspended in the third-floor lobby. Cheminert Terrazzo was used in the balcony areas overlooking the main lobby, in the Center's elevators, and in various connecting hallways to achieve a consistent, complementary aesthetic pattern throughout the building.

USD is pleased with the completed installation and looks forward to enjoying years of beauty and craftsmanship in their new building. Dex-O-Tex's Cheminert Terrazzo 18 provided a flooring system that satisfied the University's design expectations without compromising design, sustainability (50 year design life) and cleanability. The exceptional work of the JW Stratton crew met USD's standards of excellence and Jason Stratton is pleased to have played an integral part in creating an inviting environment for students in pursuit of higher education. The commitment to excellence was exhibited by the entire design, construction, supplier and installation team. It's an A+ project that we can all be proud of!

For additional information on Dex-O-Tex's complete line of concrete renovation & protection, thermal & moisture protection products, floor & wall systems, and antimicrobial systems visit www.dexotex.com.

Photos by: John Strand, Andeamo Video & Photography, Calabassas, CA www.andeamo.com