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## **EMSEAL developed a breakthrough EMSHIELD DFR2: Fire rated, watertight, trafficable structural expansion joint**

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EMSEAL, one of the leading manufacturer of premium sealants, expansion joints and gasket products in the U.S., has introduced a revolutionary new fire-rated expansion joint. EMSHIELD DFR2 is one of the market's first UL-certified single-unit fire-rated expansion joints that is trafficable, watertight, and accommodates high-movement.

Structures that will benefit from this life-safety enhancing technology include stadiums, arenas, hospitals, schools, universities, airports, parking decks, hotels and other structures where containment of fire at structural expansion joints is required.

The new hybrid system is ideal for both new and retrofit uses in construction and infrastructure applications.

EMSHIELD DFR2, developed at the company's manufacturing plant in Canada, is now on the market in the U.S., Canada and international markets.

Company officials say DFR2 is a breakthrough product that combines a number of key functions which will save architects, engineers and general contractors the expense, time and effort associated with installing a variety of products to create a fire-rated system.

"Before DFR2, expansion joints required separate products to seal, bridge, and fire-rate joints," said EMSEAL president and CEO Lester Hensley. "That meant separate material and installation costs as well as aesthetic and substrate configuration compromises to accommodate the mineral wool, fire-caulk, fire blankets or cover plates needed to perform the multiple functions required. EMSHIELD DFR2 accomplishes all these essential functions in the simple, single installation of just one product."

This is one of a number of new sealant products which EMSEAL is introducing. It joins a long list of pre-formed sealants and expansion joint systems which are in wide use today throughout the world.

"Once we see the need for a new product, as we did in this case, we go to work," said Hensley. "In fact, we are always looking to develop new products or improve on existing technology - that's what sets us apart. From the beginning of our customer's design cycle we provide complete engineering and tech support - a huge plus for designers, owners and contractors, but also the industry as a whole since we look at the big picture and develop new products to meet the market's demands."

EMSHIELD DFR2 is comprised of fire-retardant-impregnated foam pre-coated on the underside with an intumescent fire-proofing material and pre-coated on the traffic surface with highway-grade, fuel resistant silicone. It is installed into a joint gap which is primed with field-applied epoxy and finished with field-injected silicone sealant bands against the substrates. The result is a single product that can withstand vehicular and other traffic while handling thermal, traffic, wind, and seismic induced movements. It provides waterproofing protection of adjacent building materials and occupied spaces below while also providing the life-safety protection of a 2-hour fire rating.

EMSHIELD DFR2, which stands for Deck, Fire-Rated 2-Hours, provides a fire stop at the sealed joint when that joint runs horizontally and is part of a 4-inch deep or larger concrete gap. This is a common structural situation with the decks and floors of large structures. It is UL 2079 certified, meaning that it has been tested and passed the rigorous Underwriters Laboratories expansion joint sealant cycling and fire testing.

EMSHIELD DFR2 is one of the first in a comprehensive line of breakthrough, multi-function, structural expansion joint materials being released by EMSEAL. Additional versions for vertical walls are expected to be developed in the coming months.

EMSEAL, established in 1959 and located in the U.S. since 1979, has provided sealant systems and technical support to many prominent stadiums and arenas, as well as numerous hospitals, airports, malls and other commercial and public sector developments.

Some of its current and recent projects include the new Yankee Stadium and Citi Field in New York, Westfield Malls, American Airlines Arena in Miami, The Empire State Building, the Lincoln Center, The CN Tower Toronto, Watergate Hotel, Greensboro, N.C. Coliseum, Houston Intercontinental Airport, the Pentagon, Nordstrom's Stores, FedEx Field Washington Redskins Stadium, Citizens Bank Philadelphia Phillies Ballpark, California Polytechnic and the Atlantic Station in Atlanta -- to name a few of the many public structure installations. The company is the leading manufacturer of premium pre-formed sealants and expansion joint systems for the commercial construction industry and also provides gasketing applications in specialty market applications. EMSEAL operates out of two large factories - its recently relocated headquarters in Westborough, Mass. and its manufacturing plant in Toronto, Canada.

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