Groundbreaking PVDF Concrete Protection Coating Now Available

The first field roller-brush-spray applicable PVDF FLUOROSEAL® coatings for stopping concrete weakening and rebar corrosion of buildings and infrastructures

The partial collapsed of the Florida Champlain Towers South, showed not all that different to buildings nearby. That is, it is difficult to inspect and predict when the disaster will happen for a concrete buildings that had concrete overly weakened and rebar corroded.

These pictures are examples of several forms of concrete weakening and rebar corrosion. These concrete chemical reactions and rebar corrosion weakened the structure internally with little exterior damages. To assess the damage for remedial actions are not so obvious.

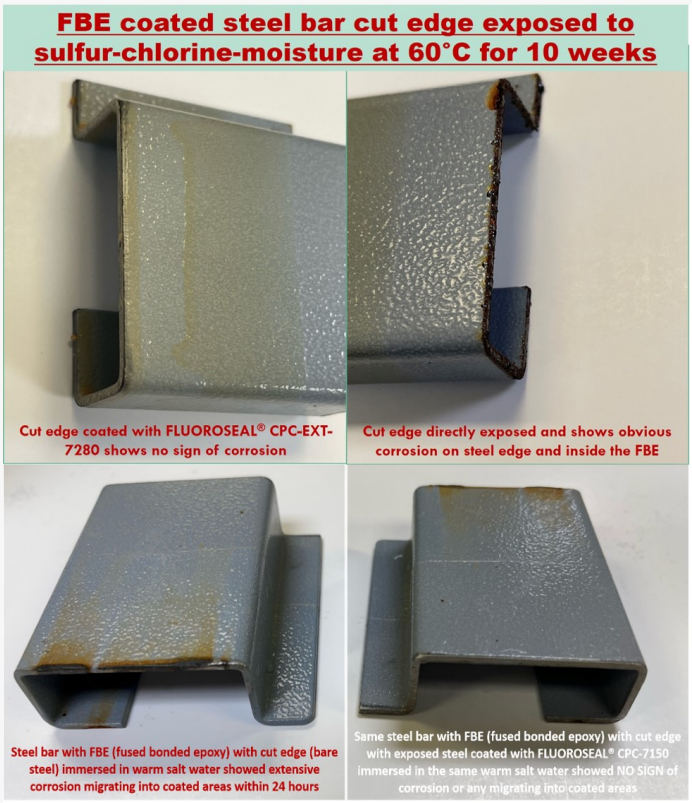
PRINCETON, NJ, UNITED STATES, May 11, 2023 /EINPresswire.com/ -- A revolutionary new concrete protection coating is now available to the public. The first field applicable PVDF coating, developed by a team of scientists at AI Technology, Inc. (AIT), is designed to protect concrete from the elements and extend its life.

Reinforced concrete and their proven strength and durability is the foundation of all the beautiful and long-lasting high-rise buildings and infrastructures. The partial collapsed of the Florida Champlain Towers South (a 12-floor condominium in Surfside) on June 24, 2021, is shaking the building industry. There is now an industry call to revamp how high-rise buildings are to be constructed . “A contributing factor under investigation is long-term degradation of reinforced concrete structural support in the basement-level parking garage under the pool deck, due to water penetration and corrosion of the reinforcing steel.”

Even if new buildings and infrastructures may be built with redundancy and improved concrete, there are millions of buildings in existence that have been and still faces gradual concrete-rebar

corrosion induced by corrosive gases such as CO2, H2S, SO2, NO, etc. Unprotected concrete encasing the rebars are still subjected to carbonation, alkalization, and other concrete weakening chemical reactions by the dissolved salt ions and acidic solutes that carried by moisture penetrating the concrete.

More frequent inspections or better testing or inspection methods have not been proven to help predict the vulnerability of the concrete structure that have been exposed to years of carbonation and rebar corrosions to different degrees depending on their geo-zone and environmental locations. FLUOROSEAL® PVDF concrete protection coatings are first of its kind that can be spray-roller-brush coating directly onto concrete in the field and on existing buildings. PVDF, PTFE and other highly packed fluorinated polymers are molecularly structured and have been proven to have the highest molecular packed density and thus lowest molecular pores to provide the barrier coating with several orders of magnitude lower permeability for moisture and corrosive gases than acrylic, epoxy, polyurethane and silicone coatings.



Any break or breach into the well protected steel infrastructure causes penetration by corrosive gases, salt-spray and salt-fog of ions laden moisture to cause corrosion. In this experiment, a FBE coated steel bar is cut on both sides with one side FLUOROSEAL protected.

AIT FLUOROSEAL® PVDF coating is a one-part system that is applied directly to the concrete surface and dry at ambient within 1-2 hours. The transparent coating provides a durable, protective layer that is resistant to UV rays, barrier to moisture-water, moisture laden with salt ions and solutes of acidic gases, and other environmental factors. It can be used on both new and existing concrete surfaces. It is also easy to clean and maintain, making it an ideal choice for both residential and commercial applications.

All the exposed reinforced concrete surfaces such as garage building and building lower floors and garage housing the main supporting columns that are more susceptible to corrosive gases and/or moisture laden with ionic salts can benefit from the immediate stopping of further degradation and weakening with FLUOROSEAL® CRC concrete protection coating.

The FLUOROSEAL® concrete and corrosive protection PVDF coating is a major breakthrough in concrete protection technology, offering superior protection, immediate stoppage of further concrete weakening and rebar corrosion, and a longer lifespan for reinforced concrete buildings

and infrastructures. It is the perfect solution for anyone looking to extend the life of their concrete buildings and peace of mind from the uncertainty of concrete-rebar corrosion and weakening from the elements.

FLUOROSEAL® concrete and corrosive protection coatings are currently the only field applicable, air-drying PVDF coatings that can be applied onto large areas of building and infrastructure directly or as top-coating to put immediate stop to further corrosion degradation and concrete weakening. This patent-pending field applicable VOC exempt coating technology is easy to implement for protecting buildings and infrastructures. It is an ideal protection for the peace of minds of those that work or live inside.

Thomas E. Pizanowski Jr.
AI Technology, Inc.
email us here