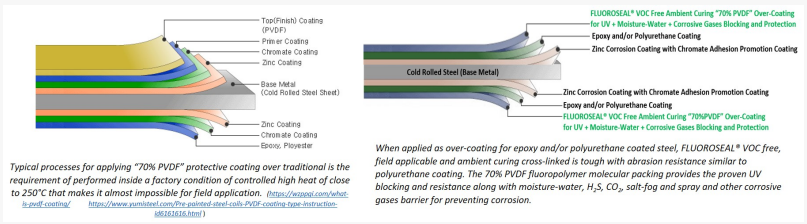
VOC free, Cross-Linked PVDF Abrasion Resistant and Field Applicable FLUOROSEAL® Corrosion and UV Protection Coating

VOC free field applicable and ambient drying FLUOROSEAL® cross-linked PVDF protective coating is first of its kind for steel structural and pipeline protection

PRINCETON JUNCTION, NJ, UNITED STATES, March 19, 2023 /EINPresswire.com/ -- AI Technology, Inc. (AIT) located in Princeton Junction, NJ is proud to introduced its FLUOROSEAL® in the upcoming 2023 AAMP national conference. This VOC free FLUOROSEAL® coating is 70% fluoropolymer based, field applicable and ambient curing protective coating is designed for use over the traditional fused bonded epoxy coated steel structure for bridges, pipeline, storage tanks and other applications under extreme corrosive and UV exposure.



Typical processes for applying "70% PVDF" protective coating over traditional is the requirement of performed inside a factory condition of controlled high heat of close to 250°C that makes it almost impossible for field application. (https://wzpqsi.com/what-is-pvdf-coating/ https://www.yumisteel.com/Pre-painted-steel-coils-PVDF-coating-type-instruction-id6126126.html)

When applied as over-coating for epoxy and/or polyurethane coated steel, FLUOROSEAL® VOC free, field applicable and ambient curing cross-linked is tough with abrasion resistance similar to polyurethane coating. The 70% PVDF fluoropolymer molecular packing provides the proven UV blocking and resistance along with moisture-water, H_2S, CO_2, salt-fog and spray and other corrosive gases barrier for preventing corrosion.

Traditional PVDF and PTFE while provide UV and corrosion protection for metal surfaces must be applied with high temperature and factory condition. VOC free, field applicable and ambient curing FLUOROSEAL® is first of its kind for protecting the fusion bo

VOC free, field applicable and ambient curing FLUOROSEAL® over standard epoxy-coated is useful in extending the maintenance-free usage for decades more years under the most intense UV and Corrosive Environments.

70% PVDF coating is one of the few in the coating industry in meeting the toughest AAMA2605 standards. They are used on many famous buildings across the globe to keep building maintains its vibrant and pristine colors. Although PVDF coating is more expensive than other coatings, PDVF coated metal is still widely selected for uses in important infrastructure. With proven resistance to corrosion acid and alkali more than 3 times better than common powdered coated steel. With proven performance after 30 years of outdoor use with no cracking, powdering or fading, even though PVDF coated steel is still the choice for important buildings and infrastructure.

Fused bonded epoxy coating while used as standard coating against corrosion inside steel pipeline and storage tank for oil and gases does not provide adequate protection against highly corrosion products such as moisture-water with H2S, CO2 and other acid

In order to improve the abrasion resistance of 70% PVDF coating, crosslinked and toughened 60% PVDF (FEVE) coatings were developed and used for steel bridges over salt-spray laden seas and heavily polluted areas. One of the conditions required for the coating of the "70% PVDF" and "60% PVDF FEVE" are the need for applying high uniform heat of up to 250°C for a short time for the solid powder resins to fused into a uniform coating. This process is much similar to the traditional powder epoxy coating process but at slightly lower temperatures.

FLUOROSEAL® field applicable, VOC free and ambient drying 70% PVDF protective coating were first developed by AIT scientists and engineers for protection electronic board as conformal coating. With more engineering and development, now a field applicable and ambient curing protective over-coating with tough abrasion resistance that was not possible for the heat fusing coating while maintaining the molecular structure of 70% PVDF is now available for use in protecting epoxy and polyurethane structural coatings.

FLUOROSEAL® as transparent over-coating protection with thickness of just 50-100 micron is deal for repairing poor condition bridges as well as dramatically reducing needs of maintenance for those steel bridges that are in good conditions.

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FLUOROSEAL® is also available in different colored variation for use as over-coating or as direct replacement coating rather than over-coating protection as illustrated below. As a replacement coating without the structural epoxy and/or polyurethane structural coating, 75 to 100-micron thickness is recommended for the additional functionality of IR blocking besides UV blocking to help keep the coated steel in much cooler conditions and thus prolonging the steel structural integrity.

About AIT Coatings and AI Technology, Inc. (AIT):
AI Technology, Inc. located in Princeton, NJ have more than 40 years in creating adhesive and coating solution for some of most challenging bonding stress, thermal dissipation, electrical interconnection. Since pioneering the use of flexible epoxy technology for microelectronic

packaging in 1985, AI Technology, Inc. (AIT) has been one of the leading forces in development and patented applications of advanced materials and adhesive solutions for electronic interconnection, packaging and protection against mechanical and environmental stresses. AIT Coatings is a division focusing on coatings for non-electronic applications.

For AIT Coatings, please visit: https://aitcoatings.com/

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