

Why does seemingly indestructible concrete buildings and infrastructures need protective coating?

Why does seemingly indestructible reinforced concrete buildings and infrastructures need protective coating?

- The weakening of the reinforced concrete structure takes decades to cause serious safety concerns
- Imminent danger from concrete “cancer” is difficult to assess and predict even with inspections



<https://www.nist.gov/disaster-failure-studies/champlain-towers-south-collapse-ncst-investigation/background>

<https://www.scientificamerican.com/article/miams-building-collapse-could-profoundly-change-engineering/>



What deleterious factors contribute to the reinforced concrete weakening?

What are the “cancer” causing elements in concrete weakening?

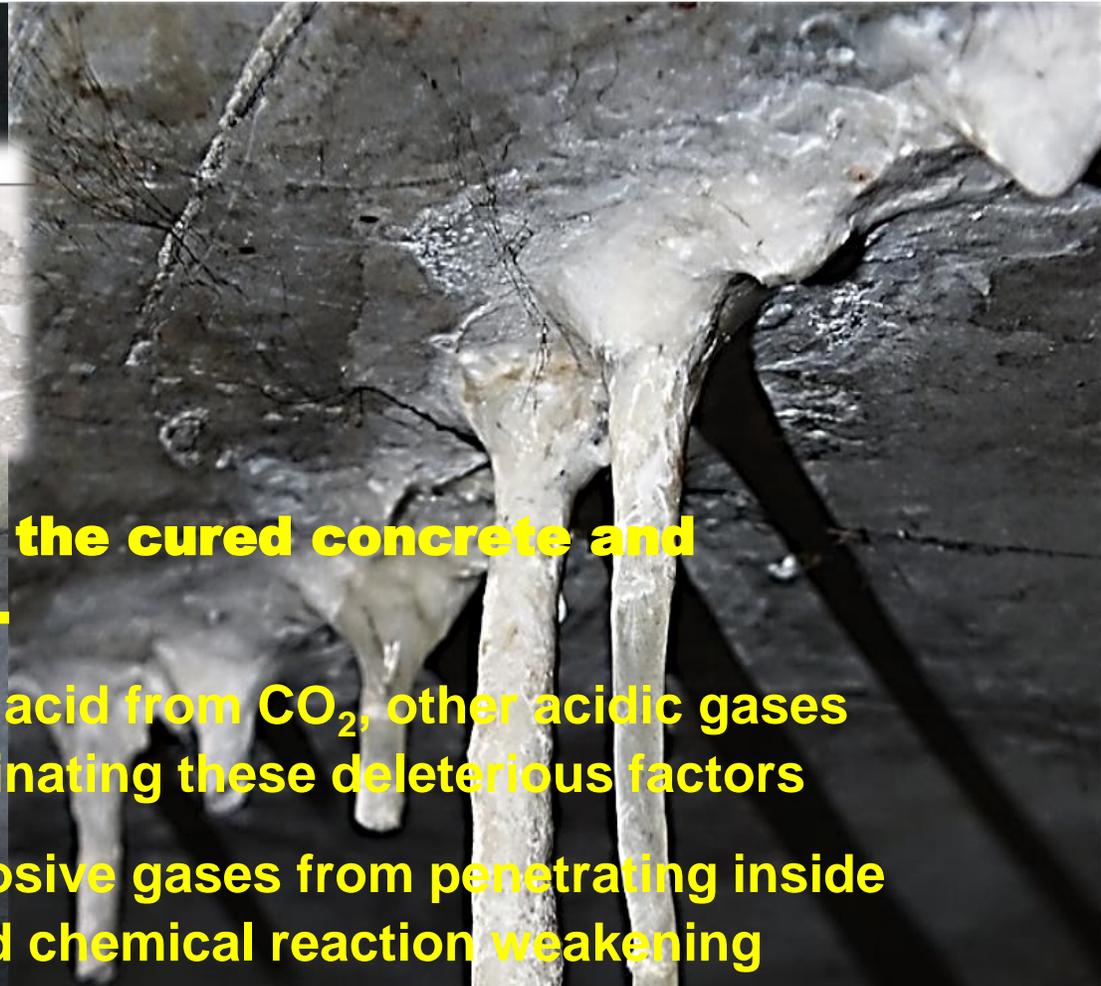
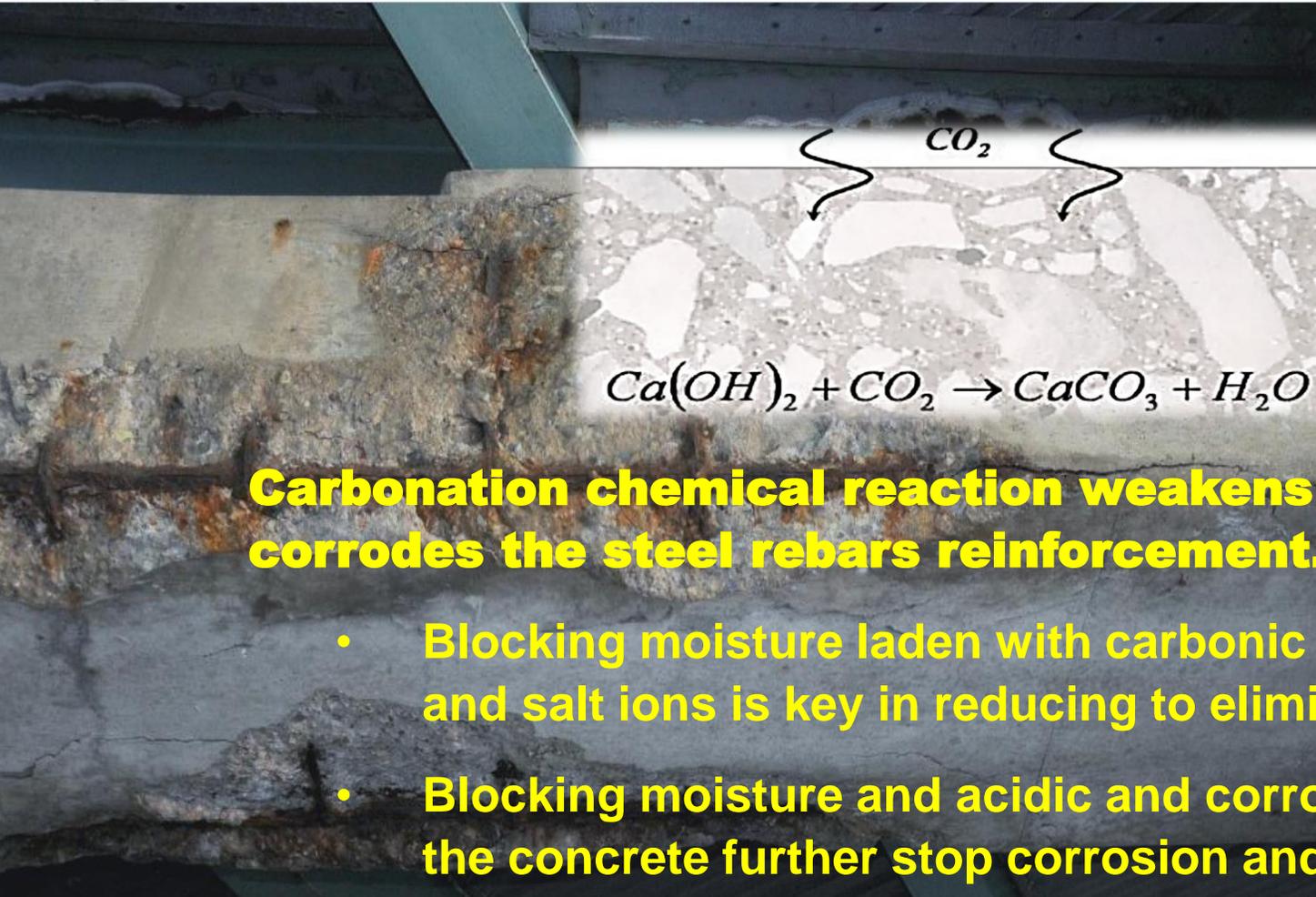
“Concrete is mostly damaged by the corrosion of reinforcement bars due to the carbonation of hardened cement paste or chloride attack under wet conditions”

https://en.wikipedia.org/wiki/Concrete_degradation

Re-alkalization chemical reactions weaken the cured concrete and corrodes the steel rebars reinforcement.

- **Blocking moisture laden with acidic gases and salt ions is key to reducing this deleterious factor**
- **Blocking moisture and acidic and corrosive gases from penetrating further inside the concrete stops corrosion and chemical reaction weakening**

Carbonation Chemical Reaction...



Carbonation chemical reaction weakens the cured concrete and corrodes the steel rebars reinforcement.

- **Blocking moisture laden with carbonic acid from CO₂, other acidic gases and salt ions is key in reducing to eliminating these deleterious factors**
- **Blocking moisture and acidic and corrosive gases from penetrating inside the concrete further stop corrosion and chemical reaction weakening**

Two other factors that also cause weakening of reinforced concrete structure:

1. Freezing and thawing in daily and seasonable temperature changes causes trapped water (from moisture penetrated inside the concrete) to expand during freezing stressing the already weakened concrete to crack and “peel-off” and thus weaken the structure.
2. Geo-hazard induced strain and excessive and long-term repeating vibrations may also induce cracking and delamination of concrete, especially at areas already weakened from rebar corrosion or chemical attack.



HOW DOES FIELD APPLICABLE FLUOROSEAL® PVDF CONCRETE PROTECTION COATING WORK IN PROTECTING CONCRETE BUILDING AND INFRASTRUCTURE?

1. Blocking moisture laden with corrosive ionic salts and corrosive acid gases from passing through concrete and staying as water solutions at the concrete-rebar interfaces causes rebar corrosion weakening and stress concentration, and allows
 - chemical reactions, such as carbonation and alkalization and others, that weaken the concrete integrity and strength
2. Blocking moisture and corrosive gases (e.g., H₂S, SO₂, CO₂, NO, Cl₂) from penetrating encasing concrete, causing concrete carbonation-alkalization weakening and steel rebar corrosion
3. Preventing frosting induced expansion, causing delamination and concrete fractures, by blocking penetration of moisture and liquid water formation at concrete-rebar interfaces or forming water pockets in the concrete pores
4. Blocking UV from attacking acrylic, stucco, epoxy and/or polyurethane structural coatings, resulting in molecular disintegration of the coating. The degraded coating accelerates penetration of corrosive elements which cause steel rebar corrosion and concrete chemical reactions



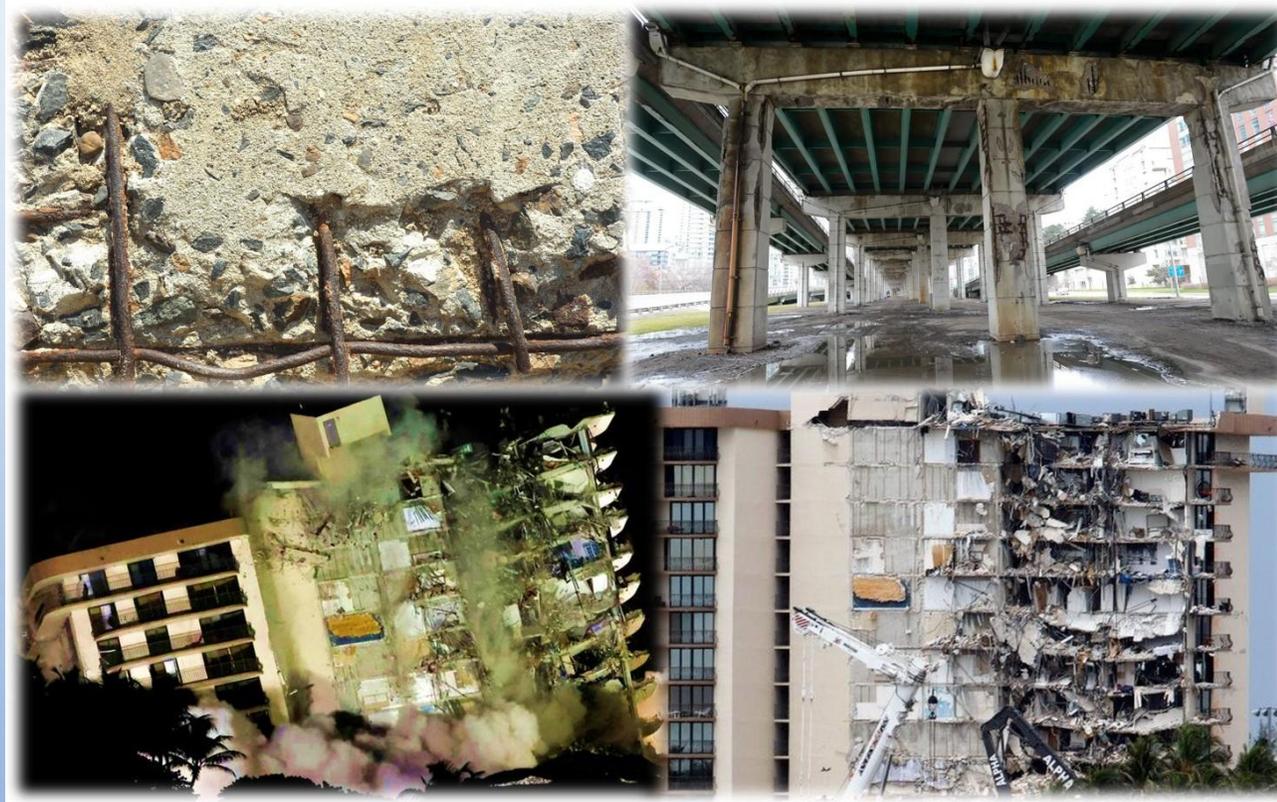
HOW DO FLUOROSEAL® PVDF COATINGS PREVENT CONCRETE DETERIORATION?



“PERMEABILITY OF CONCRETE CAN BE A PRIMARY REASON FOR CONCRETE DETERIORATION DUE TO REINFORCING STEEL CORROSION AND OTHER DETERIORATION MECHANISMS.”

American Institute of Concrete, <https://www.concrete.org/topicsinconcrete/topicdetail/permeability%20of%20concrete?search=permeability%20of%20concrete>

FLUROSEAL® PVDF Field Applicable Concrete Protection Coating is an Effective Moisture-Water and Corrosive Gas Barrier Coating and Sealant (Patent Pending)

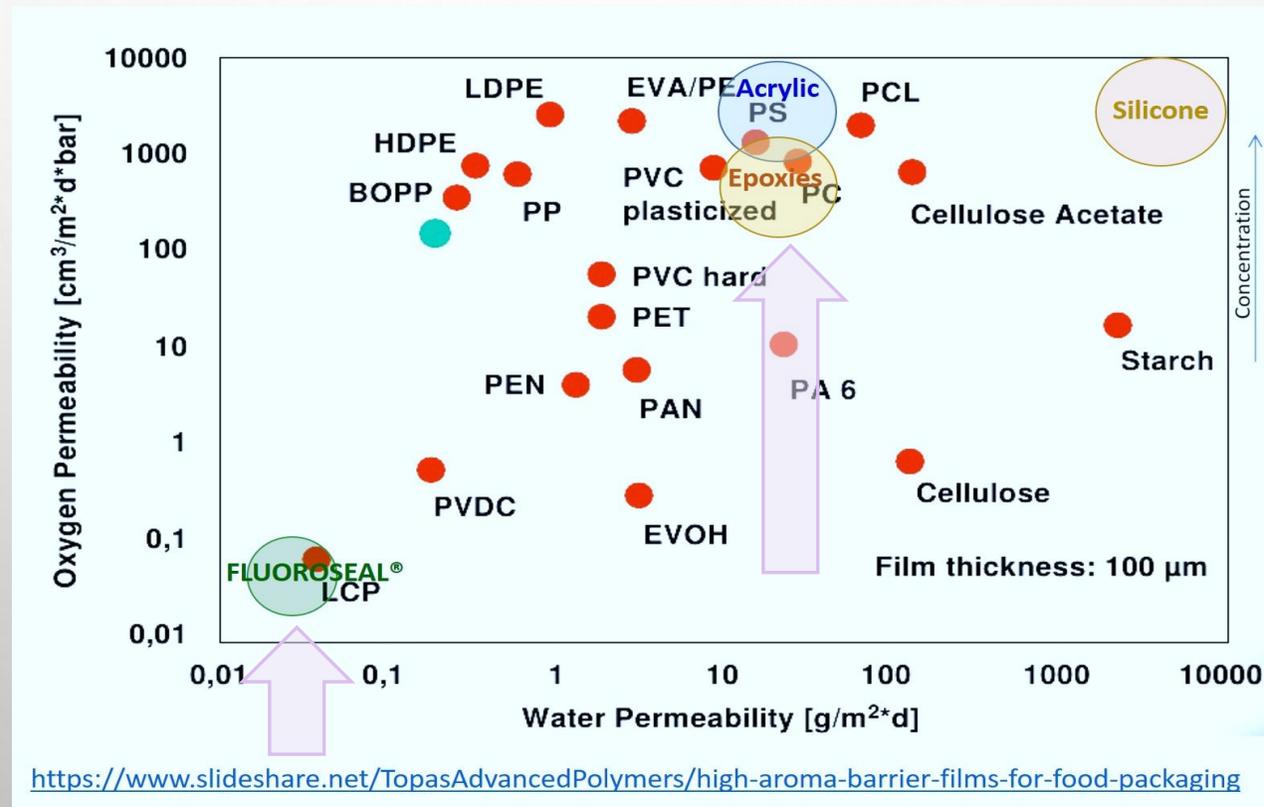


Ability to Block Moisture-Water Laden with Dissolved Salts, and Corrosive Gases, from Penetrating the Concrete Casing, is Critical in Preventing Chemical Reactions (Carbonation, Alkaline Reaction, etc.) that Damage the Integrity & Strength of the Concrete.



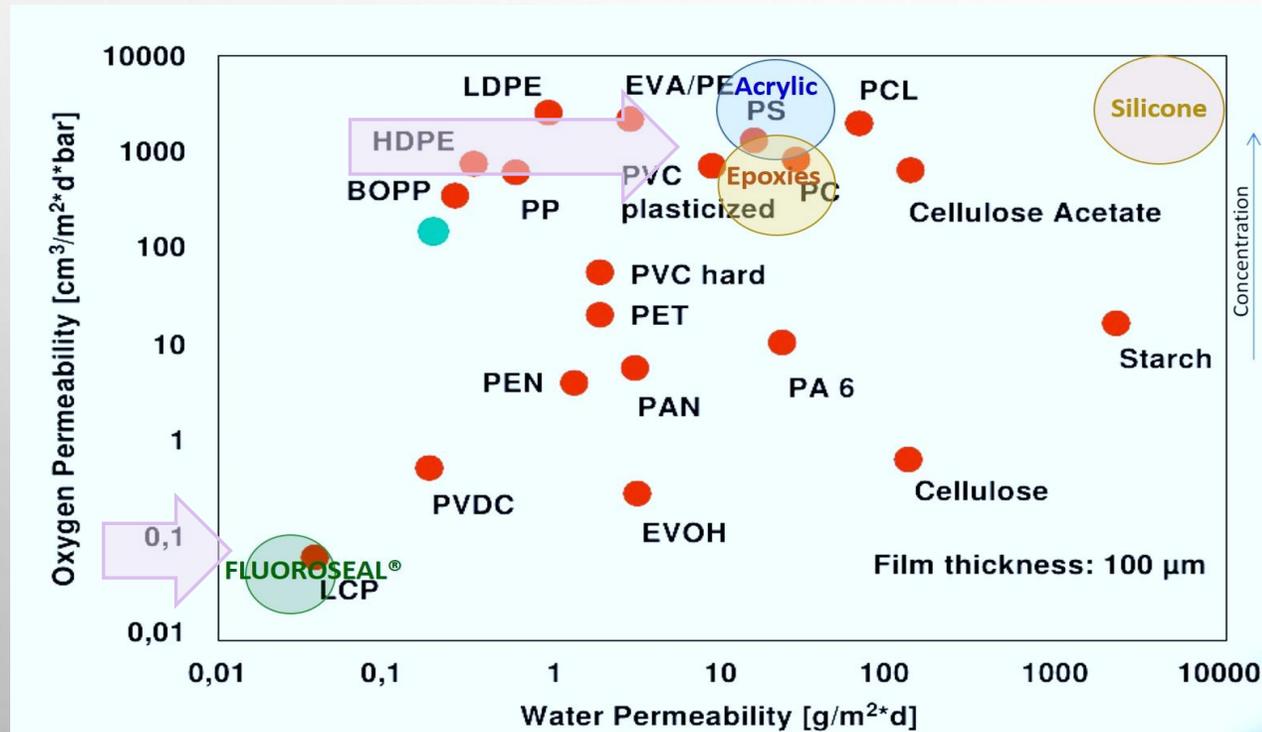
Concrete Chemical Reaction and Weakening starts with Blocking Off Moisture-Water, often Laden with Dissolved Salts and Acidic Gases, from Penetrating into Concrete:

- Acrylic, Epoxy, Polyurethane coatings are not good as moisture barriers
- **PVDF is scientifically proven to be an unparalleled moisture-water barrier**

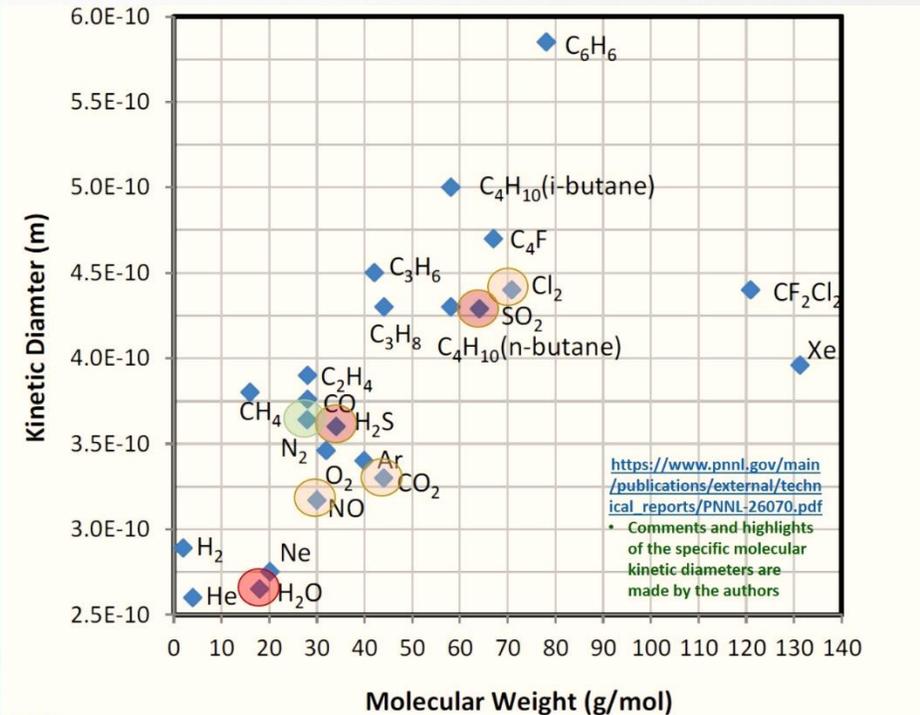


Concrete Protection Coating-Sealant must **ALSO** provide an **Effective Barrier to Corrosive Acidic Gases** (CO_2 , H_2S , SO_2 , NO , Cl_2 - all having molecular diameters similar to, or larger than, O_2 and H_2O molecules)

- **Acrylic, Epoxy, Polyurethane coatings are “porous” to corrosive gases**
- **PVDF is scientifically proven to block corrosive gases and water (liquid or vapor)**
- **FLUROSEAL® PVDF concrete protection coating is VOC-exempt and field applicable**



<https://www.slideshare.net/TopasAdvancedPolymers/high-aroma-barrier-films-for-food-packaging>



https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-26070.pdf

• Comments and highlights of the specific molecular kinetic diameters are made by the authors

NOTES:

- Smaller molecular kinetic diameter is easier to penetrate the lid-sealing adhesives and/or barrier coatings
- Barrier against H_2O is even better barrier against larger kinetic diameter of the more corrosive gases such as H_2S and SO_2
- He molecule has similar kinetic diameter to that of water vapor molecules and thus a good media for leaks comparison

“Concrete is mostly damaged by the corrosion of reinforcement bars due to the carbonation of hardened cement paste or chloride attack under wet conditions”

https://en.wikipedia.org/wiki/Concrete_degradation



Reinforced Concrete Weakening Factors:

1. **Moisture laden with corrosive ions and acidic forming gases entering and reaching the steel rebar to concrete interfaces**
2. **Penetration of gases (e.g. H_2S , SO_2 , CO_2 , NO , Cl_2) react with ingress water either to corrode the steel rebars and/or weaken the concrete structure**
3. **Expansion induced damage by the water trapped in the concrete pores**
4. **Chemical Attack: Alkali-silica reaction, alkali-carbonate reaction, etc.**

HOW DOES FLUOROSEAL® PVDF COATINGS PREVENT CONCRETE CRACKING AND WEAKENING?

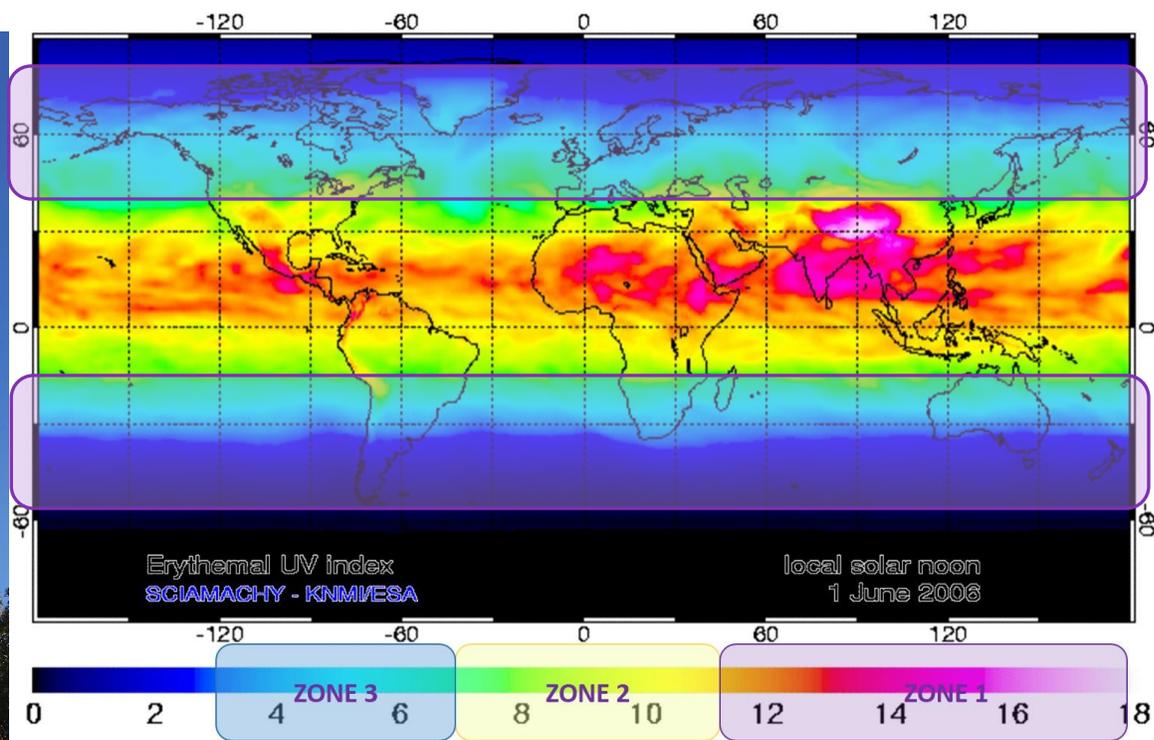


CONCRETE CRACKING CAUSED BY TRAPPED WATER FREEZING AND THAWING AND STRAIN:

1. Freezing and thawing from daily and seasonable temperature changes, causes trapped water (from moisture penetrated inside the concrete) to expand during freezing and causes the concrete to crack and “peel-off”, thus weakening the structure.
2. Geo-hazard induced strain and excessive and repeating vibrations may also induce cracking and delamination of concrete at areas already weakened, or at stressed sites (rebar corrosion or chemical attack sites).



Buildings and Infrastructure in temperate and polar zones are more susceptible to freeze-thaw threats, from moisture and/or condensed water, trapped inside concrete pores or concrete-rebar interfaces



ZONE 1:

- Extreme UV intensity
- High humidity near water
 - Fast rate of fading for outdoor paints
 - Fast rate of degradation for outdoor plastics

ZONE 2:

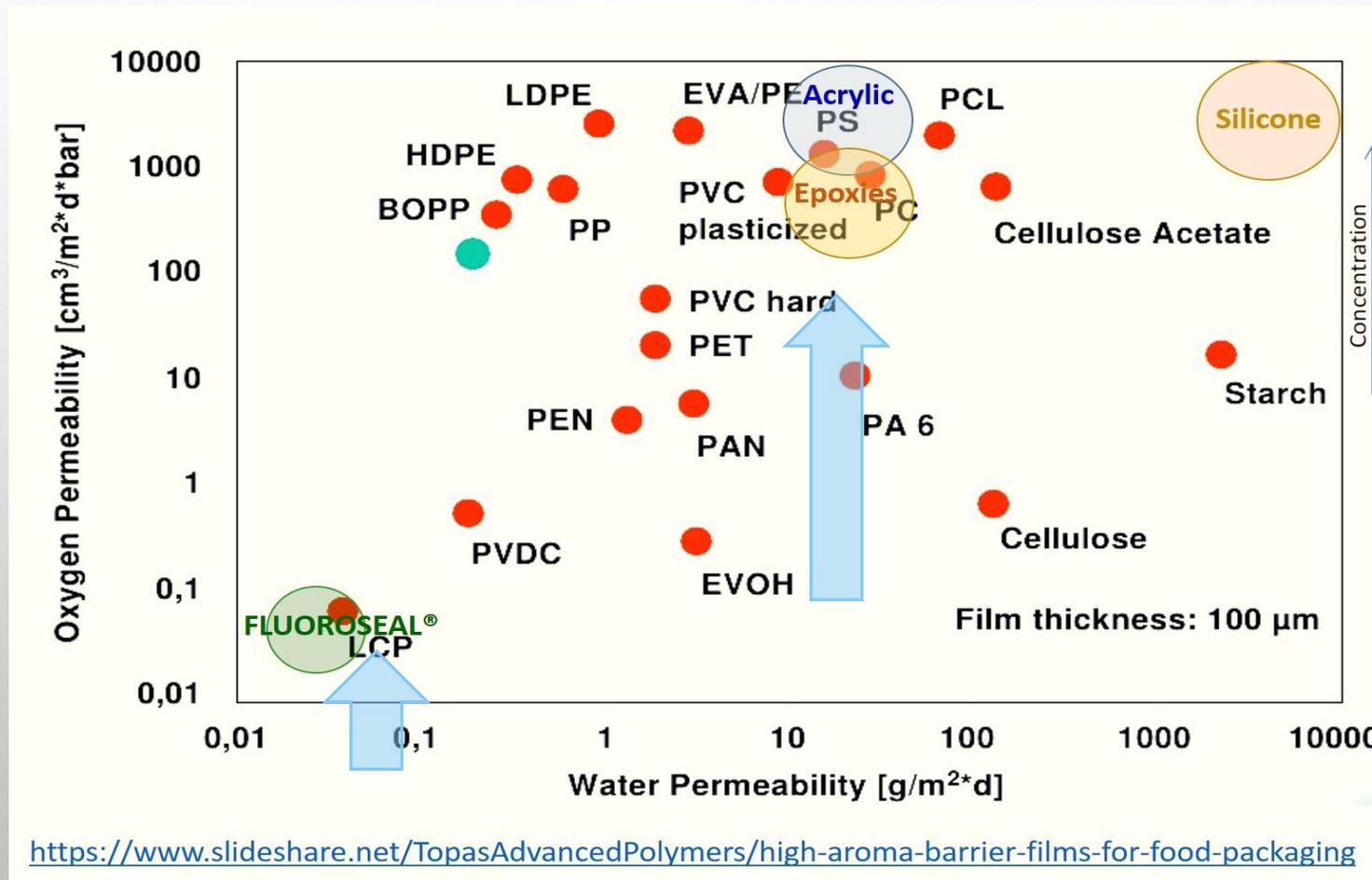
- Intense UV intensity
- High humidity near water
 - High rate of fading for outdoor paints
 - High rate of degradation for outdoor plastics

ZONE 3:

- Moderate UV intensity
- High humidity near water
 - Moderate rate of fading for outdoor paints
 - Moderate rate of degradation for outdoor plastics

Preventing Concrete Cracking and Weakening starts with Blocking Moisture-Water from Penetrating into the Concrete

- **Acrylic, Epoxy, Polyurethane coatings are poor moisture barriers**
- **PVDF is scientifically proven to be an excellent moisture-water barrier**



<https://www.slideshare.net/TopasAdvancedPolymers/high-aroma-barrier-films-for-food-packaging>

HOW DOES FLUOROSEAL[®] PVDF COATINGS PREVENT REBAR CORROSION?



BLOCKING MOISTURE OR WATER, LADEN WITH SALT IONS AND DISSOLVED ACID GASES, IS THE KEY REASON THAT FLUOROSEAL® PVDF CONCRETE PROTECTION COATINGS PREVENT REBAR CORROSION AND CONCRETE WEAKENING



“PERMEABILITY OF CONCRETE CAN BE A PRIMARY REASON FOR CONCRETE DETERIORATION DUE TO REINFORCING STEEL CORROSION AND OTHER DETERIORATION MECHANISMS.”

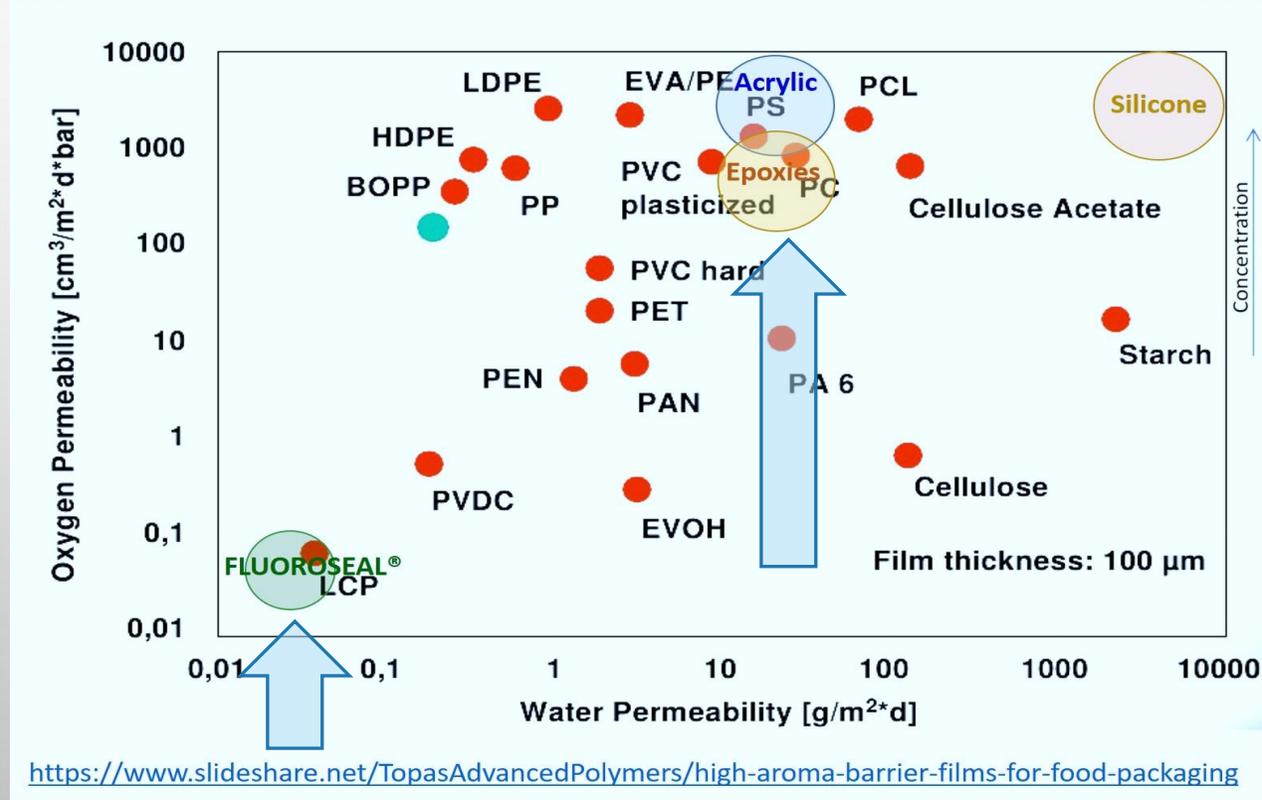
American Institute of Concrete, <https://www.concrete.org/topicsinconcrete/topicdetail/permeability%20of%20concrete?search=permeability%20of%20concrete>

FLUROSEAL® PVDF Field Applicable Concrete Protection Coating is an Effective Moisture-Water Barrier Coating-Sealant Solution (Patent-Pending)



Corrosion Protection Coating-Sealant must be an Effective Barrier to Moisture-Water (esp. when Laden with Dissolved Salts and Acidic Gases):

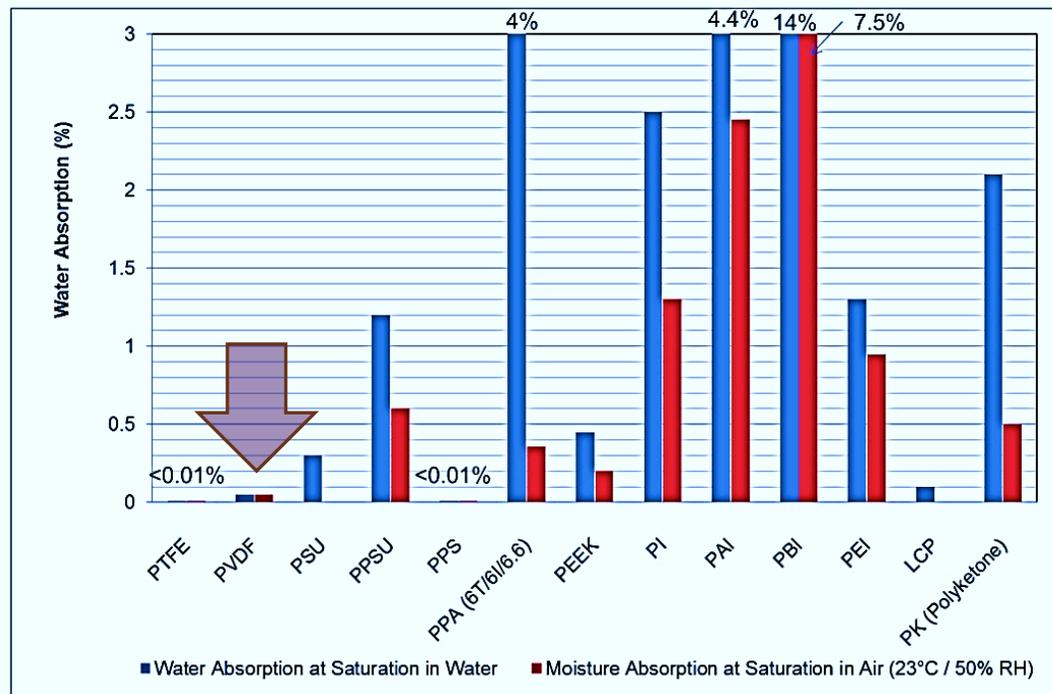
- **Acrylic, Epoxy, Polyurethane coatings are poor moisture barriers**
- **PVDF is scientifically proven to be a superior moisture-water barrier**
 - **FLUOROSEAL® PVDF concrete protection coating is VOC-exempt and field applicable**



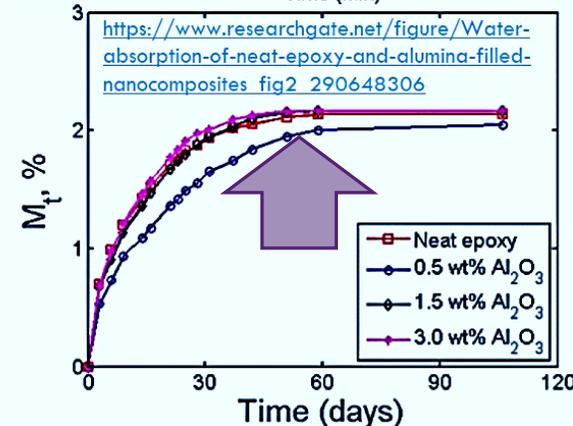
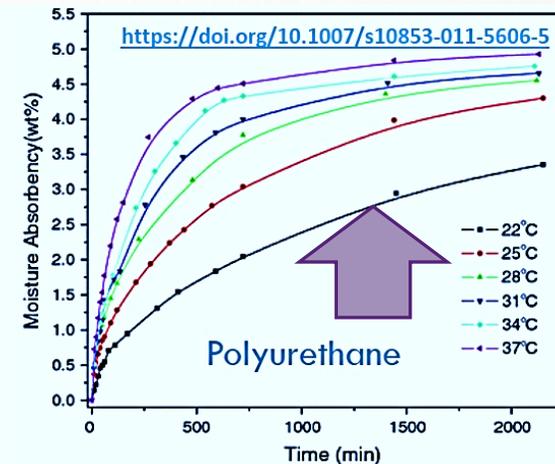
A Corrosion Protection Coating-Sealant must be poor at absorbing and retaining water and water laden with dissolved salts and corrosive acidic gases:

- Acrylic, Epoxy, Polyurethane coatings absorb and retain a good amount of water
- **PVDF has been proven to absorb and retain a very small amount**

Design Properties for Engineers: Water and Moisture Absorption of High Performance Polymers

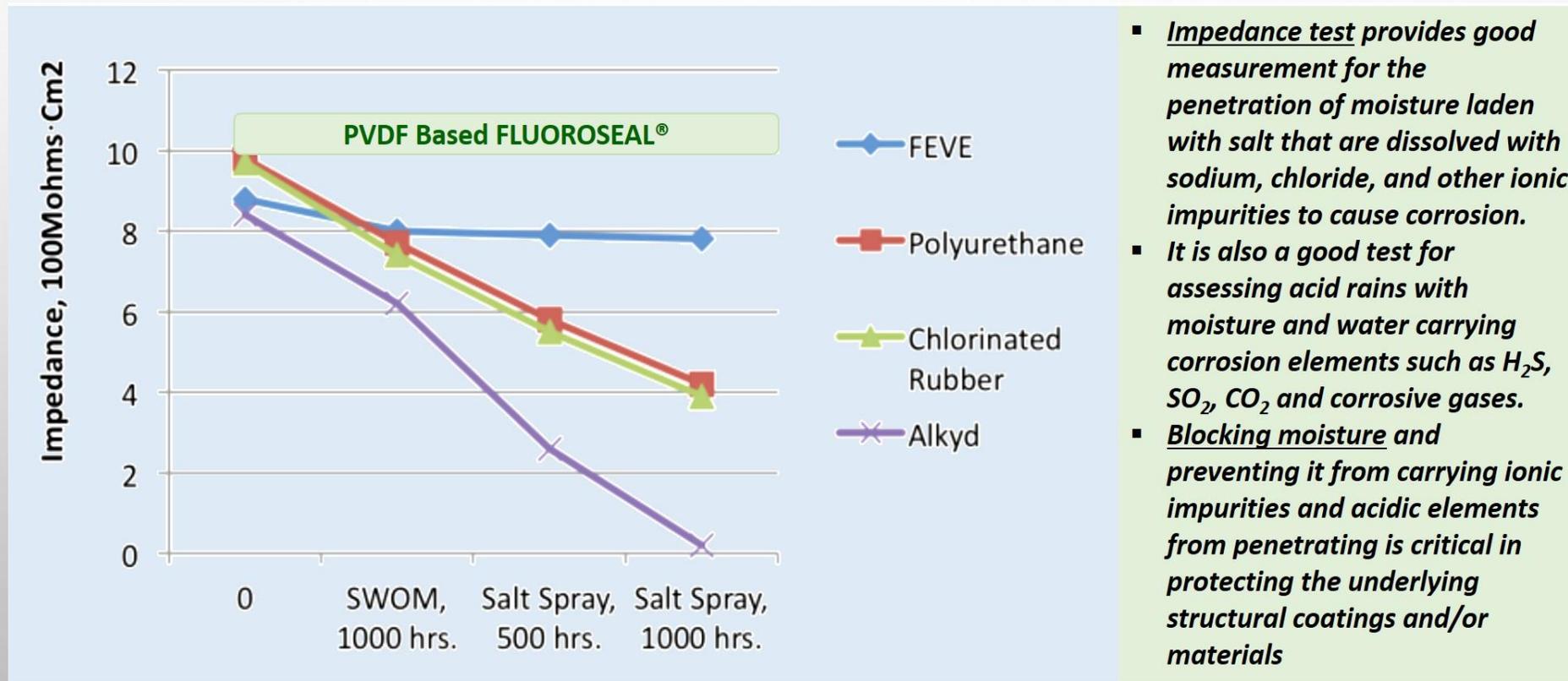


Findoutaboutplastics.com | Herwigjuster.com



A Salt-Spray test is useful for gauging the effectiveness of coatings/sealants as Barriers to Moisture-Water Laden with Dissolved Salts (Similarly for Dissolved Acidic Gases):

- **Acrylic, Epoxy, Polyurethane coatings are not good moisture barriers**
- **PVDF is an unparalleled salt laden moisture-water barrier**



STEEL WITH FBE COATING, WHEN EXPOSED TO SALT-WATER (WATER WITH DISSOLVED CORROSIVE IONS), SUFFERED CORROSION IN A MATTER OF DAYS WHEN ANY COATING SURFACES ARE SCRATCHED OR PEELED AWAY

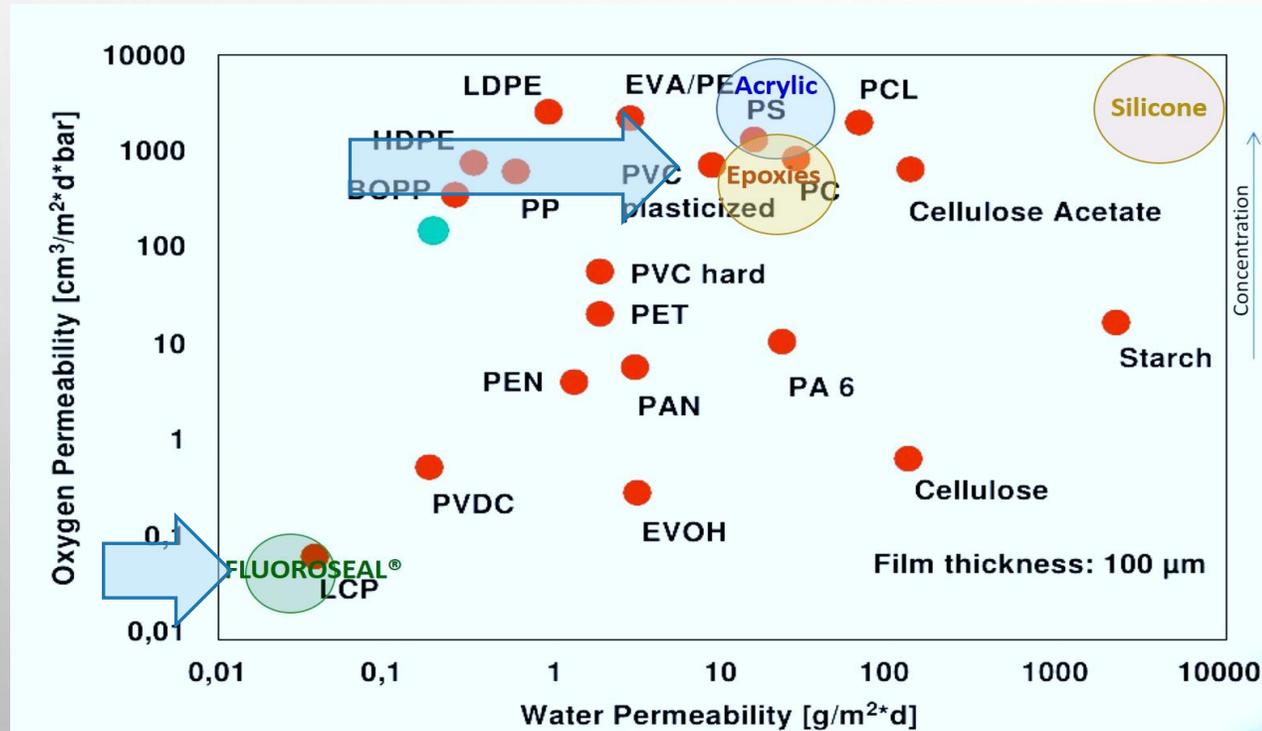


FBE coated edges corrode quickly upon exposure to 5% salt water. The corrosion quickly propagated outward to other areas.

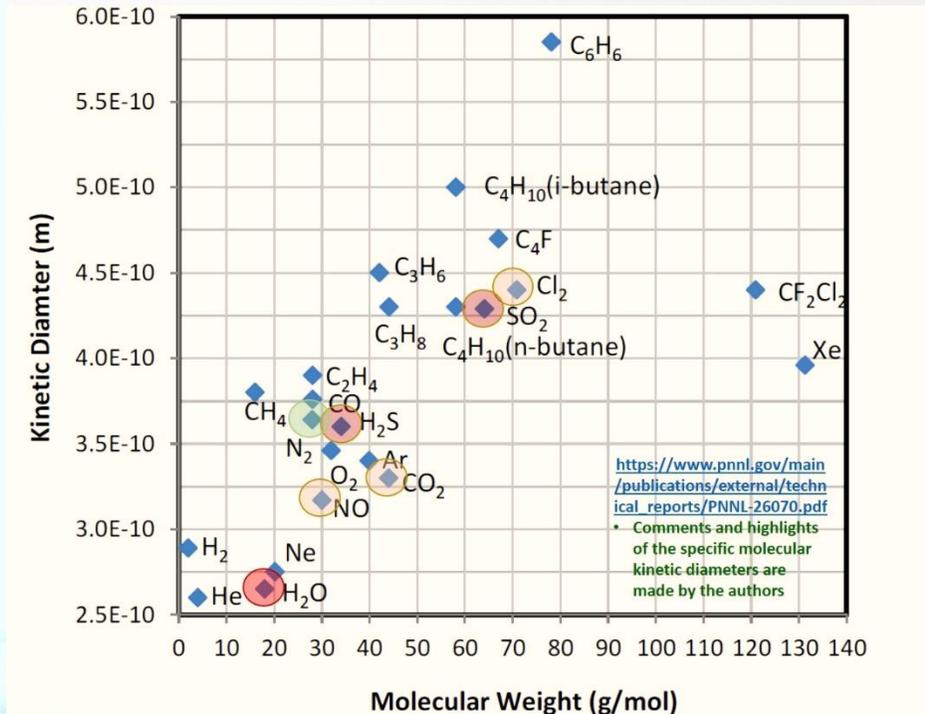
FLUOROSEAL® Corrosion Protection Coating is used to coat on the side that was cut to exposed bare-steel. No sign of corrosion is seen under the same salt water condition.

Corrosion Protection Coating-Sealant must **ALSO** be an **Effective Barrier to Corrosive Acidic Gases** (CO_2 , H_2S , SO_2 , NO , Cl_2 , all have molecular diameters similar to, or larger than, O_2 or H_2O molecules):

- **Acrylic, Epoxy, Polyurethane coatings are “porous” to corrosive gases**
- **PVDF is scientifically proven to be outstanding as corrosive gases as well as moisture barrier**
 - **FLUOROSEAL® PVDF concrete protection coating is VOC-exempt and field applicable**



<https://www.slideshare.net/TopasAdvancedPolymers/high-aroma-barrier-films-for-food-packaging>

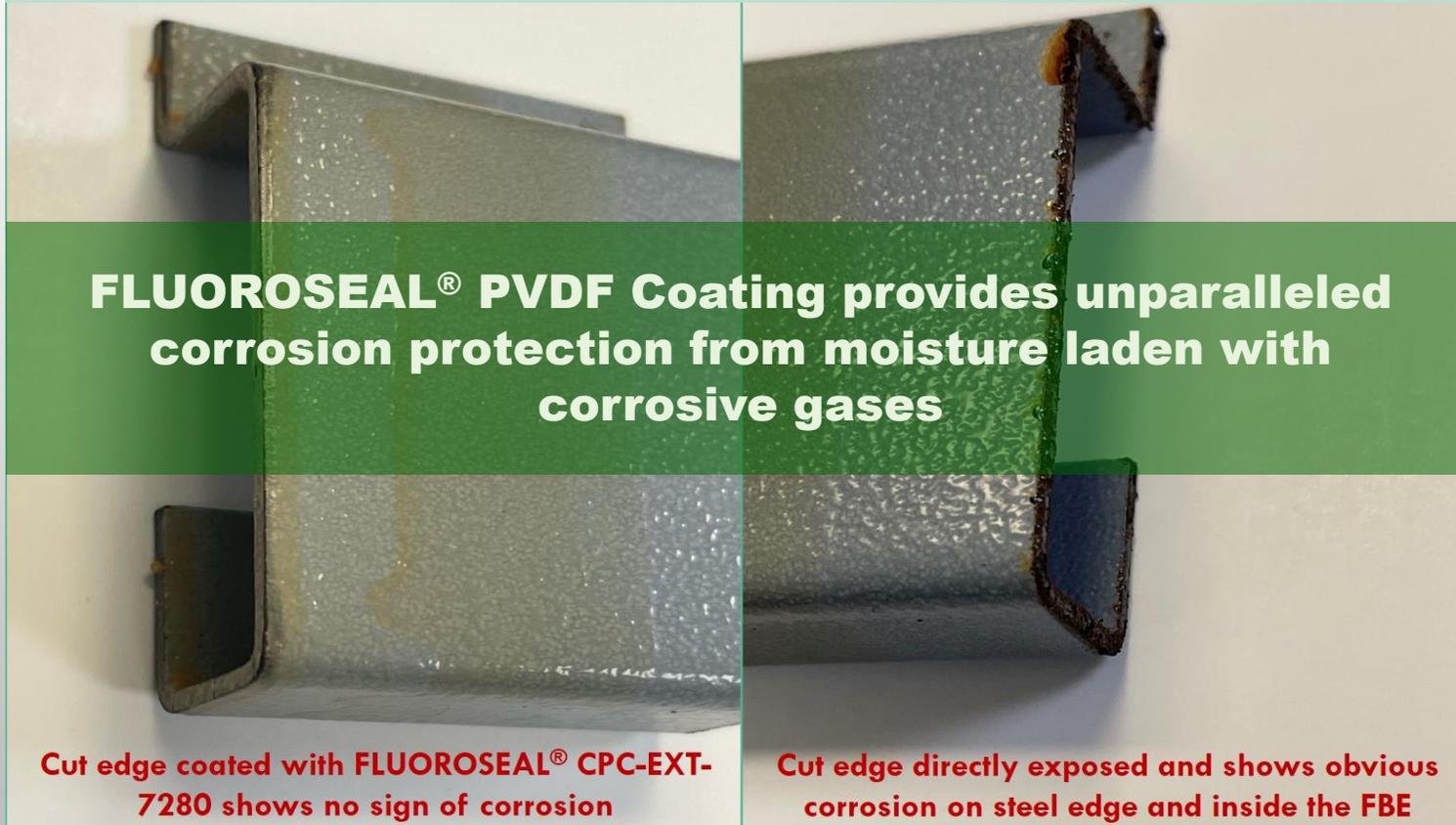


NOTES:

- Smaller molecular kinetic diameter is easier to penetrate the lid-sealing adhesives and/or barrier coatings
- Barrier against H_2O is even better barrier against larger kinetic diameter of the more corrosive gases such as H_2S and SO_2
- He molecule has similar kinetic diameter to that of water vapor molecules and thus a good media for leaks comparison

STEEL WITH FBE EPOXY COATING SUFFERED CORROSION FROM MOISTURE LADEN WITH CORROSIVE GASES QUICKLY WHEN COATING SURFACES ARE SCRATCHED OR PEELED AWAY TO EXPOSED THE STEEL SURFACES

FBE coated steel bar cut edge exposed to sulfur-chlorine-moisture at 60°C for 10 weeks



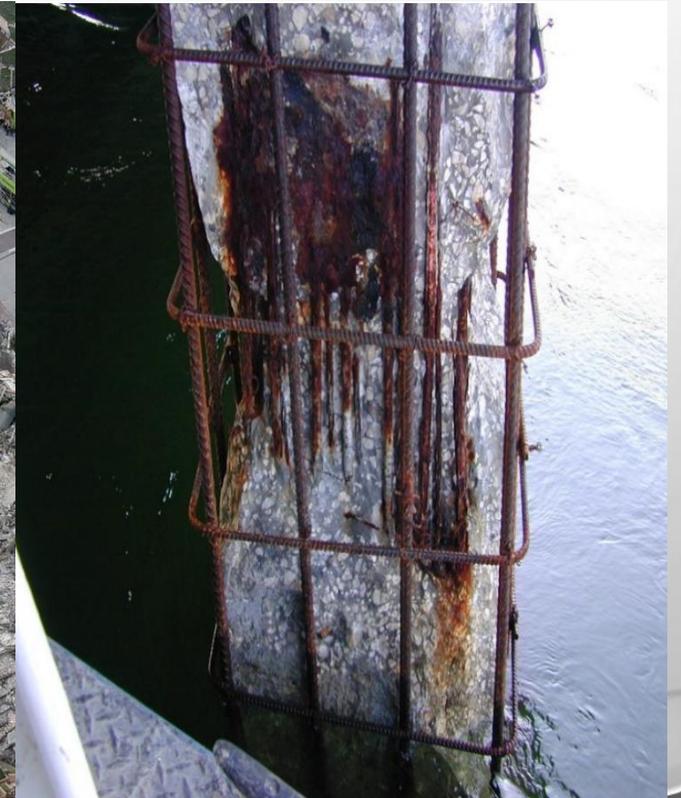
FLUOROSEAL® PVDF IS ORDERS OF MAGNITUDE BETTER AT BLOCKING MOISTURE AND CORROSIVE GASES FROM PENETRATION AND INGRESS



Buildings and infrastructure near salt-water and seas are more susceptible to corrosion from moisture laden with dissolved salts (salt-spray and salt-fog) that penetrates into concrete pores and concrete-rebar interfaces



<https://spectrum.ieee.org/why-robots-cant-help-find-survivors-in-the-florida-building-collapse>



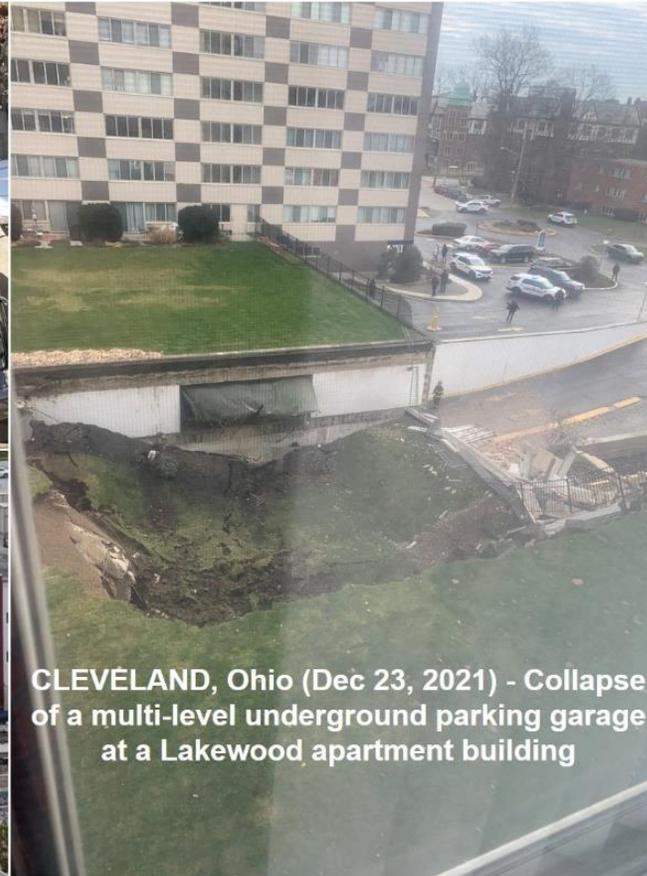
Buildings and infrastructure (e.g. garages and bridges) exposed to vehicle exhaust corrosive acid gases are vulnerable to concrete and rebar corrosion weakening



4-Story parking garage collapsed in New York City's Financial District (2023)



Five-story parking garage at Miami-Dade College, South Florida (2012)



CLEVELAND, Ohio (Dec 23, 2021) - Collapse of a multi-level underground parking garage at a Lakewood apartment building



Corrosion Protection Coatings for Steel Structure Besides being **UV Resistant**, Must also **Block UV** from Reaching Existing Protective Epoxy Coating; while also **Blocking Ingress of Moisture-Water, Moisture Laden with Corrosive Ions, Acidic Gases, or Corrosive Gases**

Properties Required for Effective Protection of Steel Structures	Polyurethane	Epoxy	FLUOROSEAL® Corrosion Protection (CPC-EXT-7150, Clear, UV Blocking) (CPC-EXT-7280, Crosslinked, Abrasion Resistant) (CPC-EXT-7284 Crosslinked with Biocide)
Moisture-Water Permeability (Relative Ingress Number, g/m ² -d)	High (>20)	High (>20)	Very Low (<0.05)
Corrosive Gases (H ₂ S, CO ₂ , etc.) Permeability (cm ³ /m ² -d-bar)	Very High (>2,000)	Very High (>2,000)	Very Low (<0.1)
Water Repellant	Fair	Fair	Good
Water Absorption (Retention)	Medium	Medium	Low
UV Molecular Stability (Resistance)	Fair (Proven <10 Years)	Fair (Proven <10 Years)	Outstanding (Proven >60 Years)
Choices of Color	1. Colored 2. Customized	1. Colored 2. Customized	1. Clear 2. Customized
Field Application Method	Spray, Brush, Roller (1-or 2-Component, Ambient Storage, Coating Liquid)	Spray, Brush, Roller (1-or 2-Component, Ambient Storage, Coating Liquid)	Spray, Brush, Roller (1-Component, Ambient Storage, VOC Exempt, Coating Liquid)
Cost of Material and Labor	Similar material and labor costs for same performance level (>200 Micron thickness)	Similar material and labor costs for same performance level (>200 Micron thickness)	Similar for material and Labor for the same performance level (≈50 Micron thickness)

FLUOROSEAL® Corrosion Protection Coatings:

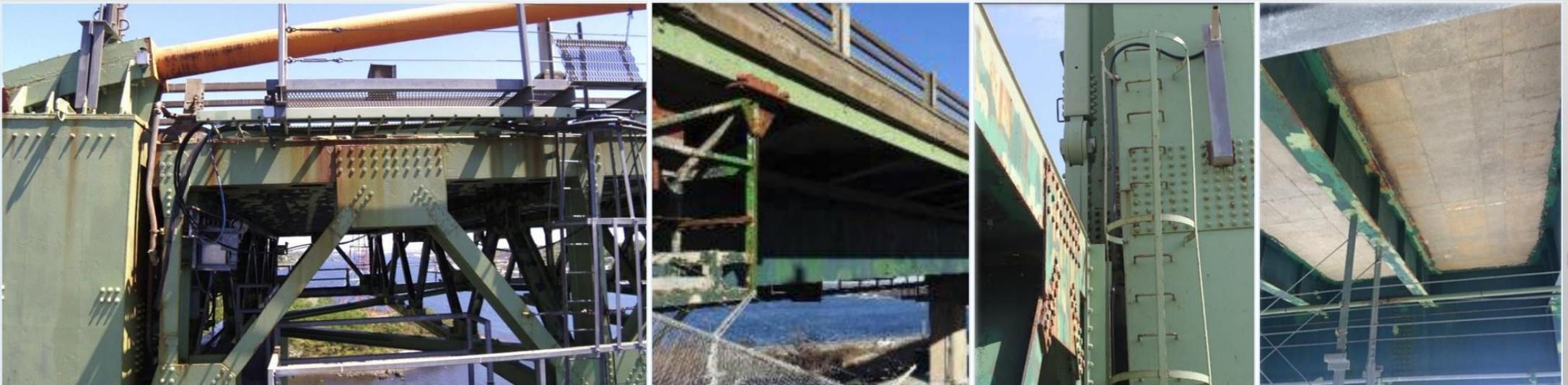
1. Proven Unparalleled Moisture Barrier
2. Proven Corrosive Gases Blocking
3. Proven UV Blocking and Resistant
4. Proven Water Repellent
5. Field Applicable Ambient Storage 1-Component VOC Free Coating Liquid
6. Air Drying
7. Apply Over the Existing Epoxy-Polyurethane Coatings
8. Proven protection with 50-100µm coating thickness

INFRASTRUCTURE WITH STEEL AND REINFORCED CONCRETE THAT ARE STRUCTURALLY PROTECTED WITH EPOXY-ACRYLIC-POLYURETHANE PAINTS REQUIRE ADDITIONAL UV RAY DEGRADATION PROTECTION



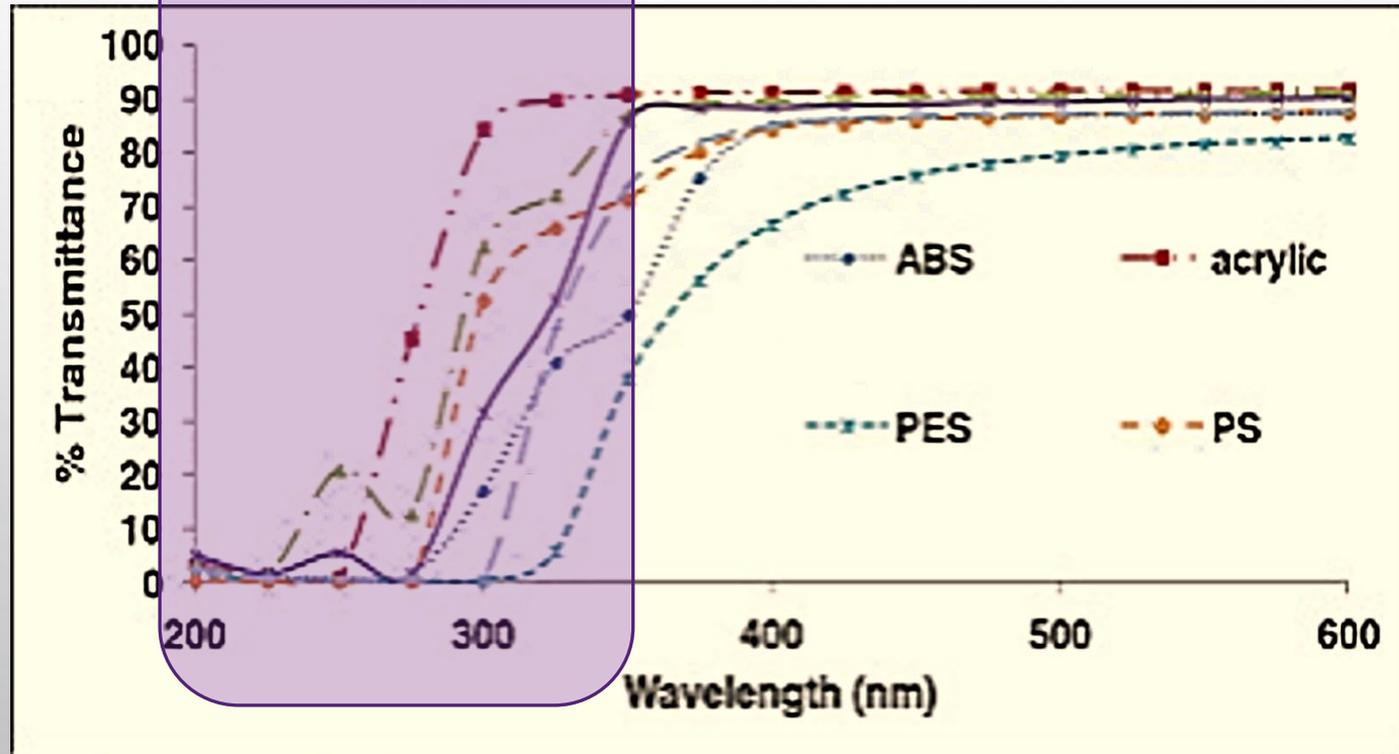
Protecting infrastructure with painted steel superstructure and painted concrete requires the combination of the following three abilities:

1. **Blocking UV rays** from reaching and damaging the epoxy-acrylic-polyurethane protective coatings
2. **Blocking water and moisture laden with dissolved salts and corrosive acidic gases** from passing through the epoxy-acrylic-polyurethane coating layer to reach the steel-coating interfaces
3. **Blocking moisture and corrosive gases** from penetrating and reaching the steel-coating interfaces



Acrylic, Polyurethane and Epoxy coatings are known to be vulnerable to molecular damage by UV exposure

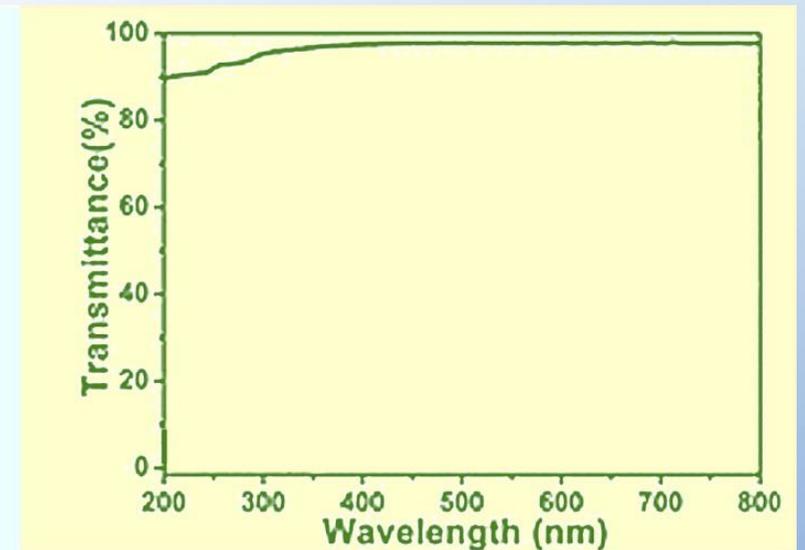
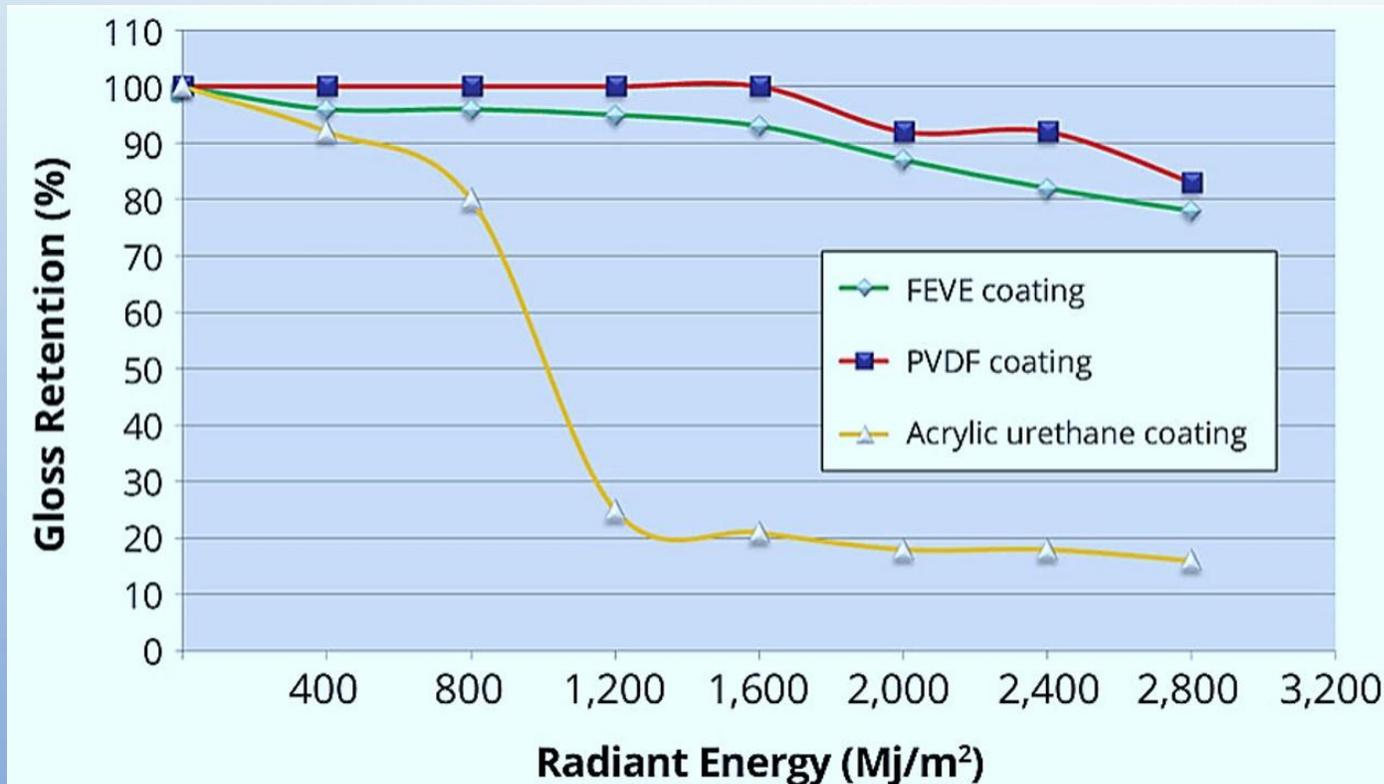
UV Absorption damages polymer bonds and caused degradation



https://www.researchgate.net/figure/UV-transmission-curves-for-some-PC-replacement-products-UV-Visible-spectroscopy-of_fig4_262788108

Gloss retention and UV resistance do not guarantee UV blocking - UV from penetrating into epoxy-polyurethane coatings beneath and causing molecular damages

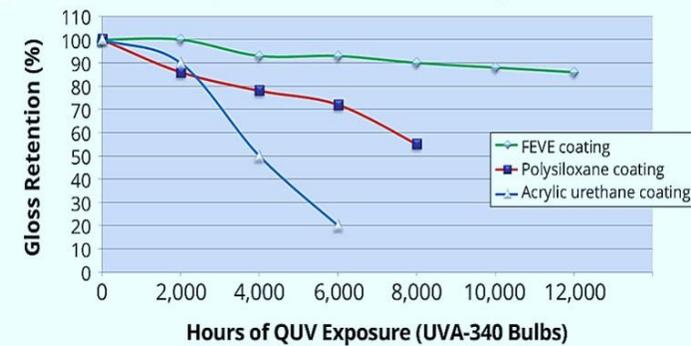
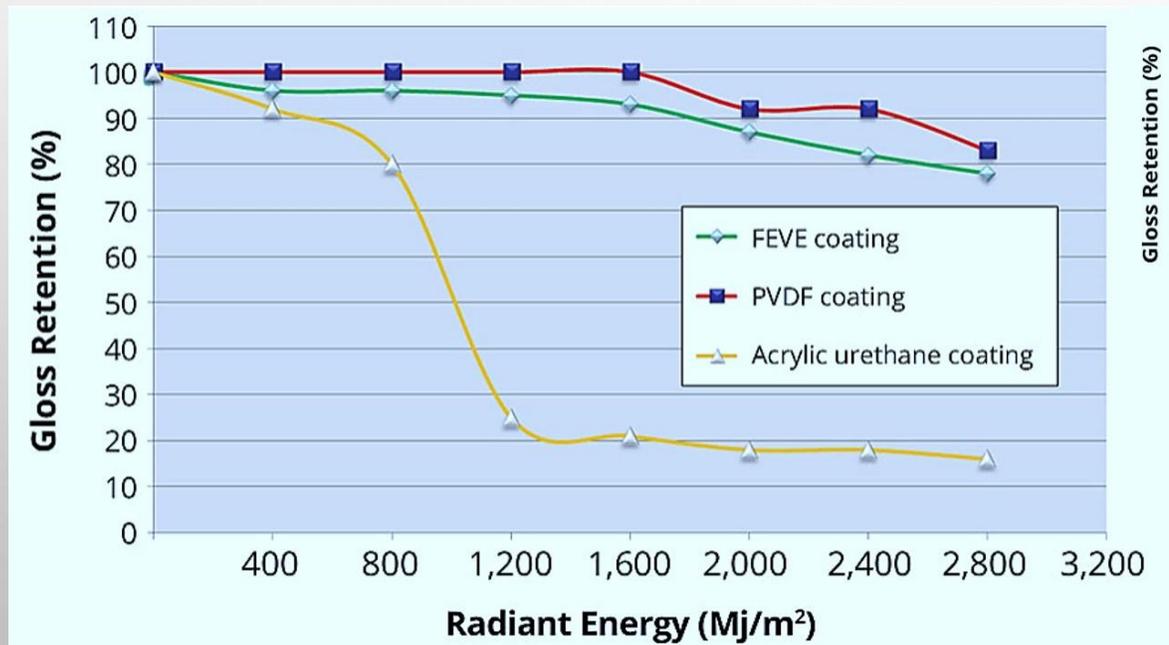
- **FLUOROSEAL[®] is the Only Transparent Protection Coating that Blocks UV Penetration**



PVDF and FEVE as fluoropolymers for coating applications is resistant to UV damaging their molecular structure and thus strong gloss retention

PVDF (Polyvinylidene fluoride) and FEVE (Fluoroethylene Vinyl Ether) Powder Coating with 70% and 60% Fluorinated Polymer Segments are Proven Technology in Maintaining Gloss and Color under Tropic UV exposure for Over 60 Years

- **FLUOROSEAL®** are the only **VOC-Exempt, Transparent PVDF Corrosion Protection Coating today**

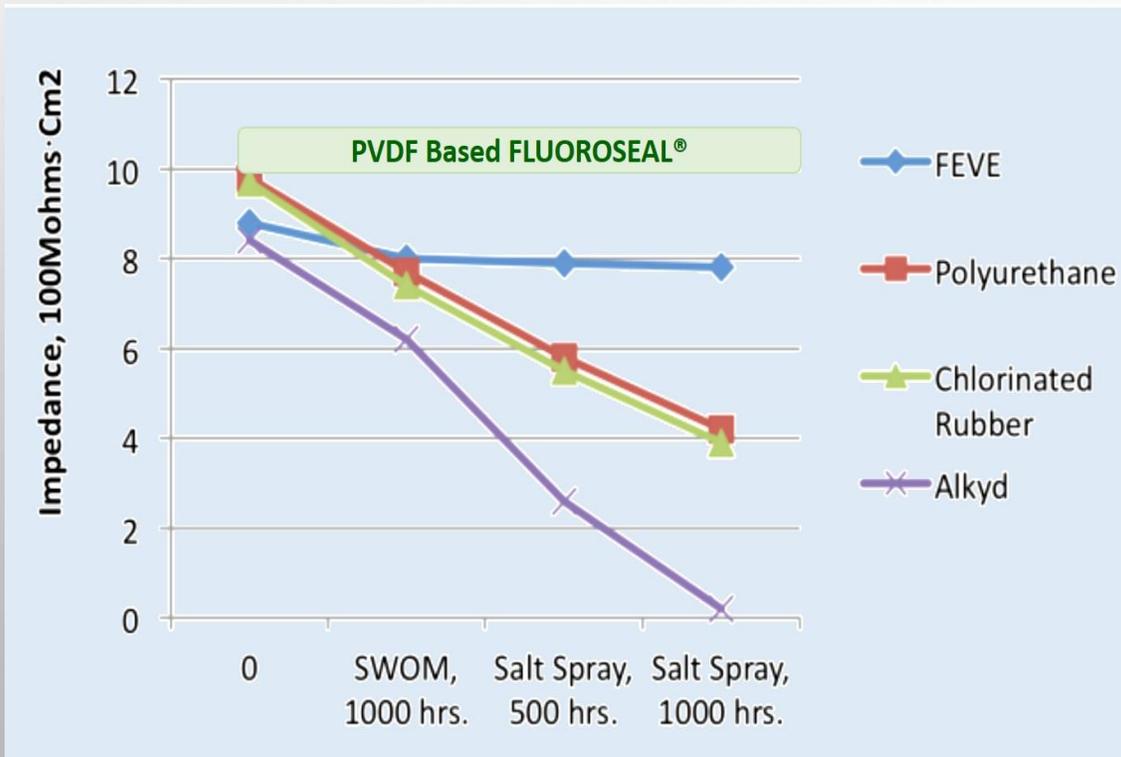


Silicone, acrylic and acrylic urethane coatings degrade much faster than FEVE and PVDF based coatings

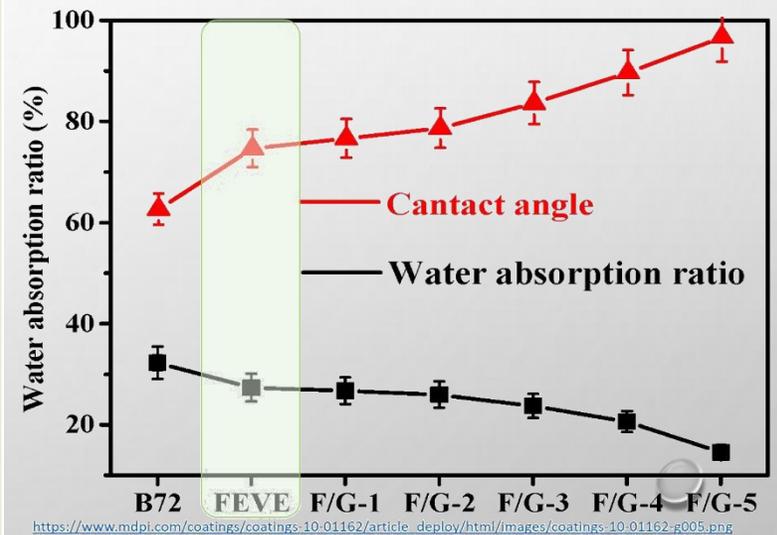
<https://www.pcimac.com/articles/100524-formulation-techniques-using-feve-resins>

Polymers such as epoxies, polyurethane, Alkyd, rubbers, absorb high amounts of water and/or relatively high moisture permeability (e.g. silicone even without absorbing them) and thus not effective in preventing corrosion of the steel or aluminum underneath the protective coatings

➤ **Moisture-water laden with salts is extremely corrosive**

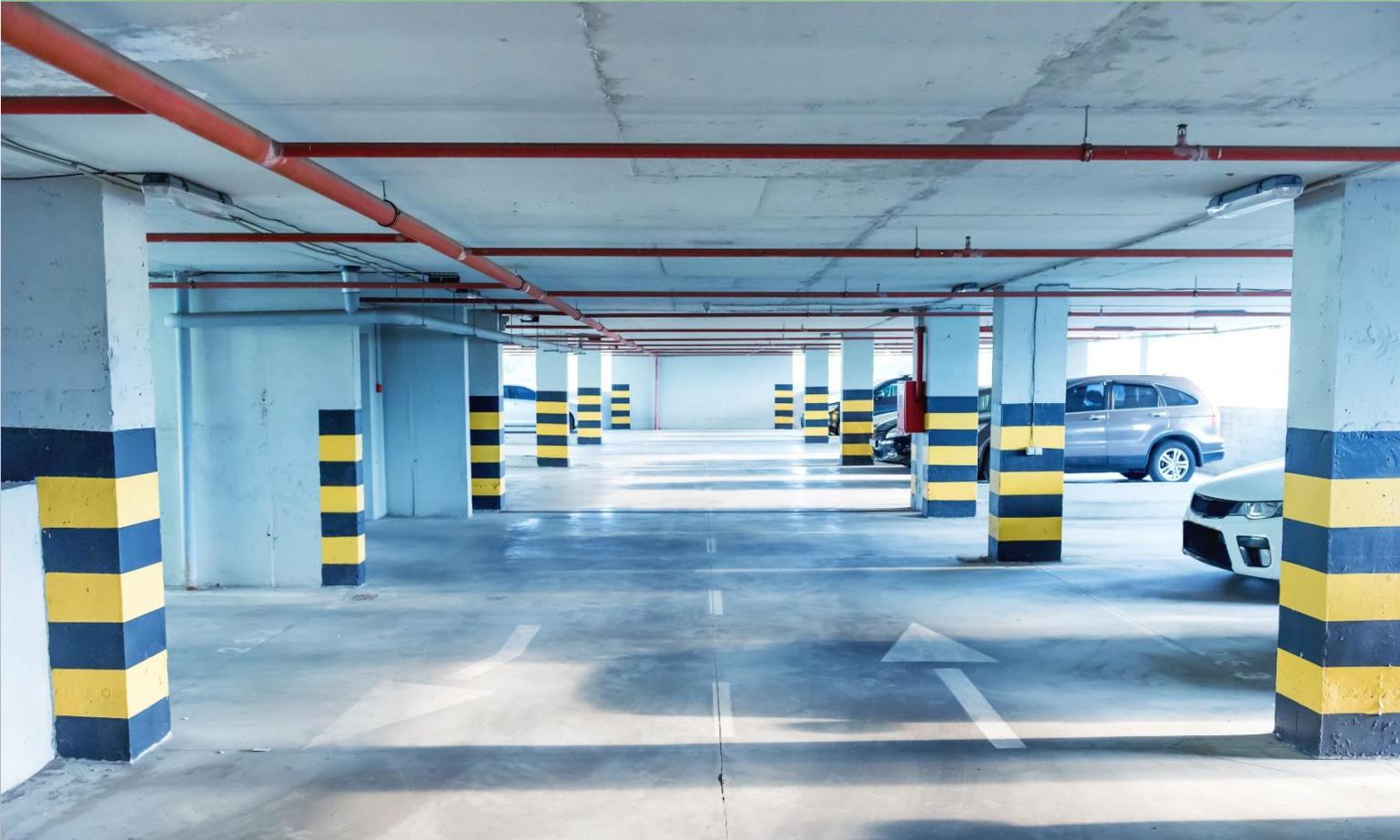


- *Impedance test provides good measurement for the penetration of moisture laden with salt that are dissolved with sodium, chloride, and other ionic impurities to cause corrosion.*
- *It is also a good test for assessing acid rains with moisture and water carrying corrosion elements such as H₂S, SO₂, CO₂ and corrosive gases.*
- *Blocking moisture and preventing it from carrying ionic impurities and acidic elements from penetrating is critical in protecting the underlying structural coatings and/or materials*



FEVE molecular packing differs from that of PVDF. FEVE allows moisture penetration and water retention.

Underground and lower level parking garages and parking garages with reinforced concrete support columns can benefit from applying a FLUROSEAL® CRC-V-7150 concrete protection coating that blocks the vehicle exhausts, which are acidic corrosive gases and moisture laden with corrosive salt ions



Tunnels built with reinforced concrete that are exposed daily to vehicle exhaust gases, can also benefit from FLUOROSEAL® CRC-V-7150 coatings that block these acidic and corrosive gases, thus lowering maintenance costs for this important infrastructure.



Reinforced Concrete foundations that support bridge super-structures are often not well protected or maintained. FLUROSEAL® CRC-V-7150 coatings give peace of mind and maintenance free protection to these important support structures.



EXAMPLES OF FIELD APPLICABLE AIT FLUOROSEAL® PVDF CONCRETE AND CORROSIVE PROTECTION COATINGS



Concrete Protection Coating

FLUROSEAL® CRC-V-7150

(Flat Finish)

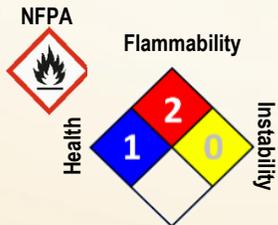
- For blocking moisture, salt fog and spray, acid rain and moisture from penetrating into concrete
- For blocking CO₂, H₂S, and other corrosive gases from penetrating into concrete and rebar Interfaces
- Coat directly on concrete surfaces for preventing rebar corrosion and concrete weakening
- Orders of magnitude more effective as moisture and corrosive gases barrier than silicone, acrylic, epoxy and polyurethane
- Fluoropolymer proven with > 60 Years UV Stability

Content: 5 Gallon



FOR INDUSTRIAL USE ONLY

KEEP AWAY FROM CHILDREN



DANGER!
**CONTAINS VOC
EXEMPT FLAMMABLE
SOLVENT**
**(Please consult SDS
before using)**



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ait@aittechnology.com

*Over 40 Years of Excellence and Leadership
in Advanced Coatings and Adhesives*



INSTRUCTIONS FOR PROPER USE OF TRANSPARENT FLUROSEAL® CRC-V-7150 (FLAT FINISH) CONCRETE PROTECTION COATING:

1. FLUROSEAL® CRC-V-7150 concrete protection coating is designed for use on vertical surfaces of concrete only. Do not use for concrete flooring protection.
2. Make sure concrete, cement, plaster surfaces are free of dirt, wax, grease and all other contaminants for best adhesion on concrete surfaces and protection of concrete reinforcing steel bars.
3. Mask all areas that do not need protection if applicable.
4. Remove any surface condensation before applying concrete protection coating.
5. Shake coating in container vigorously before using.
6. Make sure enough ventilation is available to avoid breathing in solvent vapor.
7. Coat two passes to ensure complete coverage. Thickness of 25-75 micron is sufficient for best protection. Thicker coating can also be used if deemed needed. Add acetone solvent for dilution if for spray coating whenever needed.
8. The coating will dry to touch in less than 15 minutes. Ambient dry overnight for complete coating curing.
9. Ambient temperature storage only. If content frozen to gel; warm bottle with content in warm water bath.

CONTAINS: Solvent (T-Butyl Acetate (540-88-5), Acetone (67-64-1), 2-Heptanone (110-43-0), Propylene carbonate (108-32-7)); Modified fluorinated polymer and additives (Non-Hazardous and Proprietary).

DANGER! FLAMMABLE. Keep away from sparks, heat or open flames. Vapors will accumulate readily and may ignite explosively. Keep area ventilated during use and until all vapors are gone. **DO NOT SMOKE** -Extinguish all flames, pilot light and heaters, and any other sources of ignition.

VAPOR HARMFUL! Use with adequate ventilation, Avoid continuous breathing of vapor and spray mist. If you experience eye irritating, headaches, or dizziness, increase fresh air or wear respiratory protection (NIOSH/MSHA approved) or leave the area.

Avoid contact with skins and eyes.

FIRST AID – In case of eye contact, flush thoroughly with plenty of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician.

Note: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND WHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Before using, user shall determine the suitability of the product for his intended use. The manufacturer should not be liable for any injury, loss or damage, direct or consequential, arising out of the use or non-performance with the use of this product. User assumes all risks and liability in connection with the use of the product.

Concrete Protection Coating

FLUROSEAL® CRC-H-7280

- Fluoropolymer for >60 years outdoor UV protection
- Crosslinked for abrasion resistance and traffic
- For blocking moisture, salt fog and spray, acid rain and moisture from penetrating into concrete
- For blocking CO₂, H₂S, and other corrosive gases from penetrating into concrete and rebar Interfaces
- Coat directly on concrete surfaces for preventing rebar corrosion and concrete weakening
- Orders of magnitude more effective as moisture and corrosive gases barrier than silicone, acrylic, epoxy and polyurethane



Instruction for proper use of FLUROSEAL® CRC-H-7280 for outdoor concrete horizontal surfaces (rooftop and walkway) protection:

1. FLUROSEAL® CRC-H-7280 is a clear concrete protection coating designed for outdoor horizontal surfaces use (rooftop and walkway, not for indoor floorings).
2. Make sure concrete, cement, plaster surfaces are free of dirt, wax, grease and all other contaminants for best adhesion on concrete surfaces and protection of concrete reinforcing steel bars.
3. May be used as UV protection over-coating on epoxy or polyurethane surfaces.
4. Remove any surface condensation before applying concrete protection coating.
5. Shake coating in container vigorously before using.
6. Make sure enough ventilation is available to avoid breathing in solvent vapor.
7. Coat two passes to ensure complete coverage. Thickness of 25-75 micron is sufficient for best protection. Thicker coating can also be used if deemed needed. Add acetone solvent for dilution.
8. The coating will dry to touch in less than 15 minutes. Ambient curing overnight or longer (depending on ambient temperature) before walking on surface.
9. Ambient temperature storage only.

CONTAINS: Solvent (T-Butyl Acetate (540-88-5), Acetone (67-64-1), 2-Heptanone (110-43-0), Propylene carbonate (108-32-7)); Modified fluorinated polymer and additives (Non-Hazardous and Proprietary).

DANGER! FLAMMABLE. Keep away from sparks, heat or open flames. Vapors will accumulate readily and may ignite explosively. Keep area ventilated during use and until all vapors are gone. DO NOT SMOKE -Extinguish all flames, pilot light and heaters, and any other sources of ignition.

VAPOR HARMFUL! Use with adequate ventilation, Avoid continuous breathing of vapor and spray mist. If you experience eye irritating, headaches, or dizziness, increase fresh air or wear respiratory protection (NIOSH/MSHA approved) or leave the area.

Avoid contact with skins and eyes.

FIRST AID — In case of eye contact, flush thoroughly with plenty of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician.

Note: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND WHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

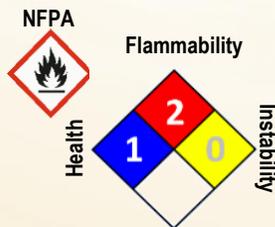
Before using, user shall determine the suitability of the product for his intended use. The manufacturer should not be liable for any injury, loss or damage, direct or consequential, arising out of the use or non-performance with the use of this product. User assumes all risks and liability in connection with the use of the product.

Content: 5 Gallon



FOR INDUSTRIAL USE ONLY

KEEP AWAY FROM CHILDREN



DANGER!
**CONTAINS VOC EXEMPT
FLAMMABLE SOLVENT**
**(Please consult SDS
before using)**



AI Technology, Inc. 70 Washington Road,
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ait@aitechnology.com

*Over 40 Years of Excellence and Leadership
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Corrosion Protection Coating

FLUOROSEAL® CPC-EXT-7280

(Abrasion Resistant Crosslinked Gloss Finish)

- For blocking moisture, salt fog and spray, acid rain and moisture laden with acid gases from penetrating through epoxy coating into structural steels
- For blocking H₂S, CO₂ and other corrosive gases from penetrating to cause steel corrosion
- For blocking UV in penetrating epoxy-polyurethane coating to cause molecular damages
- Orders of magnitude more effective as moisture and corrosive gases barrier than acrylic epoxy, polyurethane
- Fluoropolymer proven with > 60 Years UV Stability



Content: 5 Gallon
FOR INDUSTRIAL USE ONLY



KEEP AWAY FROM CHILDREN

NFPA



Flammability



Health

Instability

DANGER!

**CONTAINS VOC EXEMPT
FLAMMABLE SOLVENT**

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Instruction for proper use of FLUOROSEAL® CPC-EXT-7280 (Abrasion Resistant Crosslinked Gloss Finish) for steel infrastructure (bridges, tunnels, etc.) corrosion protection:

1. FLUOROSEAL® CPC-EXT-7280 is an abrasion resistant, crosslinked gloss finish coating for corrosion protection of structural steel used in infrastructure, oil-gas pipeline, storage and shipping tankers with epoxy and/or polyurethane coating.
2. Make sure surfaces are free of dirt, wax, grease and all other contaminants for best adhesion and corrosion protection of structural steels and other metals.
3. Mask all areas that do not need protection if applicable.
4. Remove any condensation on surfaces before applying protection coating.
5. Shake coating in container vigorously before using.
6. Make sure enough ventilation is available to avoid breathing in solvent vapor.
7. Brush, roller or spray coat at least two passes to ensure complete coverage. Thickness of 25-75 micron is sufficient for best protection. Thicker coating can also be used if deemed needed. Add acetone solvent for dilution if for spray coating whenever needed.
8. The coating will dry to touch in less than 15 minutes. Ambient dry overnight for complete coating curing.
9. Ambient temperature storage only.

CONTAINS: Solvent (T-Butyl Acetate (540-88-5), Acetone (67-64-1), 2-Heptanone (110-43-0), Propylene carbonate (108-32-7)); Modified fluorinated polymer and additives (Non-Hazardous and Proprietary).

DANGER! FLAMMABLE. Keep away from sparks, heat or open flames. Vapors will accumulate readily and may ignite explosively. Keep area ventilated during use and until all vapors are gone. DO NOT SMOKE - Extinguish all flames, pilot light and heaters, and any other sources of ignition.

VAPOR HARMFUL! Use with adequate ventilation. Avoid continuous breathing of vapor and spray mist. If you experience eye irritating, headaches, or dizziness, increase fresh air or wear respiratory protection (NIOSH/MSHA approved) or leave the area.

Avoid contact with skins and eyes.

FIRST AID – In case of eye contact, flush thoroughly with plenty of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician.

Note: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND WHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Before using, user shall determine the suitability of the product for his intended use. The manufacturer should not be liable for any injury, loss or damage, direct or consequential, arising out of the use or non-performance with the use of this product. User assumes all risks and liability in connection with the use of the product.

QUESTIONS?

PLEASE CONTACT OUR TECHNICAL STAFF FOR MORE INFORMATION
OR FOR APPLICATION ASSISTANCE:

**609-799-9388 OR
AIT@AITECHNOLOGY.COM**