

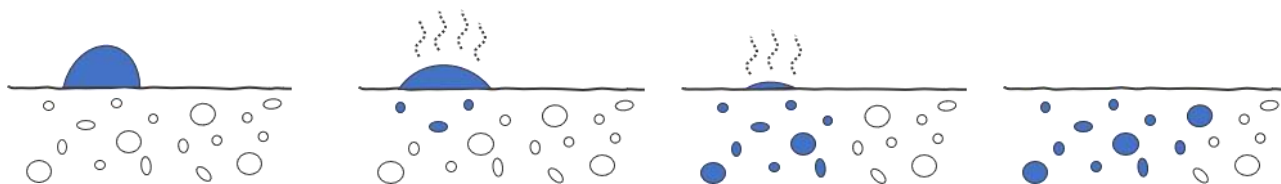


**Introduction**

**CRAFCO**®  
INC

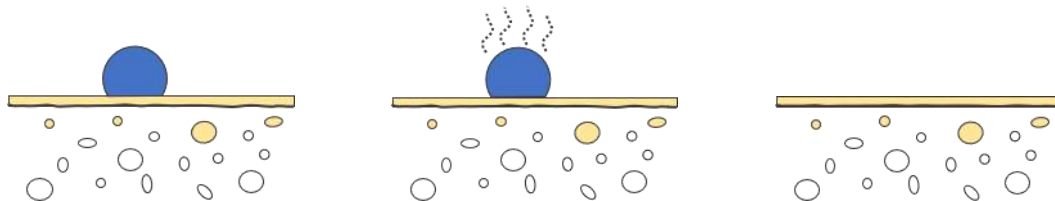
# Wetting & Absorption

## Untreated



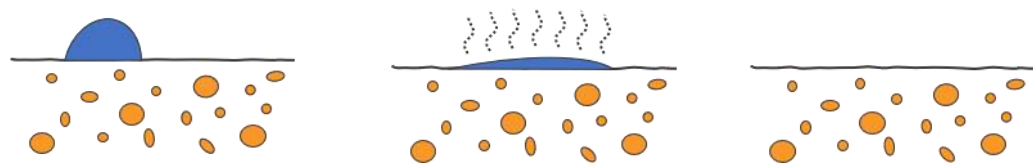
When water is exposed to concrete it must reach equilibrium through a combination of absorption and evaporation. When it is absorbed, it brings in any ions it contains.

## Typical Sealers (Silane)



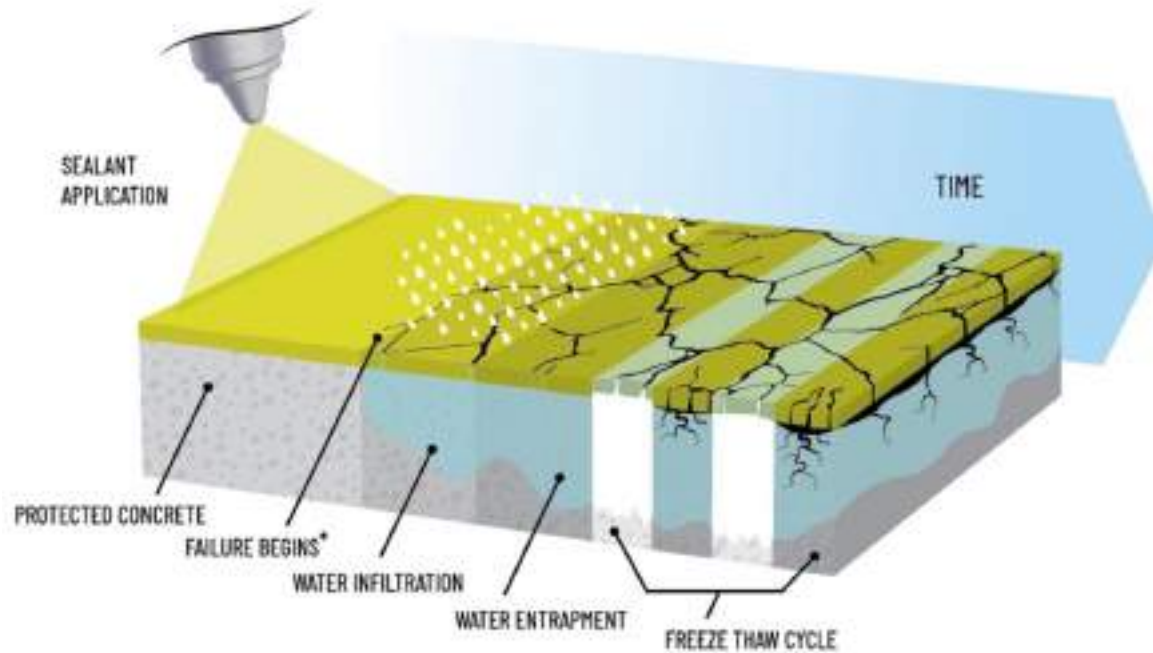
Like most sealers PoreShield protects concrete by eliminating absorption, forcing water to evaporate, preventing the ingress of ions.

## PoreShield

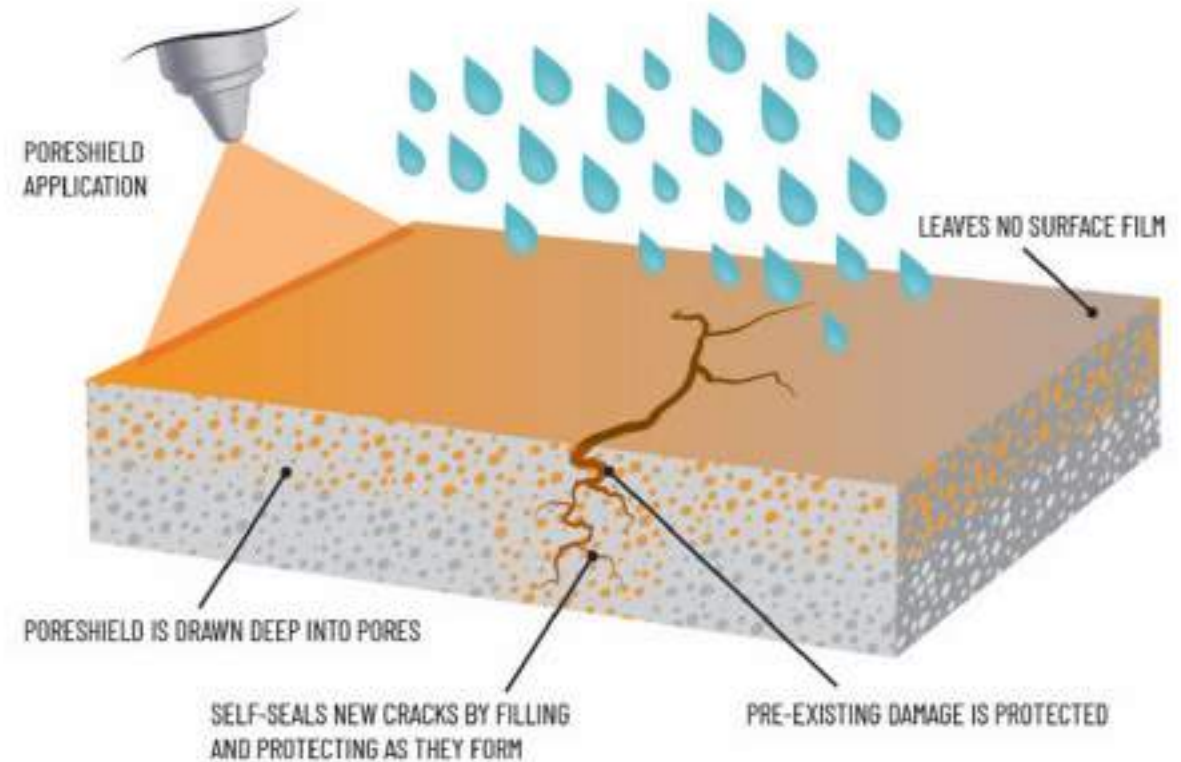


Unlike most sealers PoreShield, provides this protection from deep within the pores and leaves no film behind on the surface.

# A different means of protection

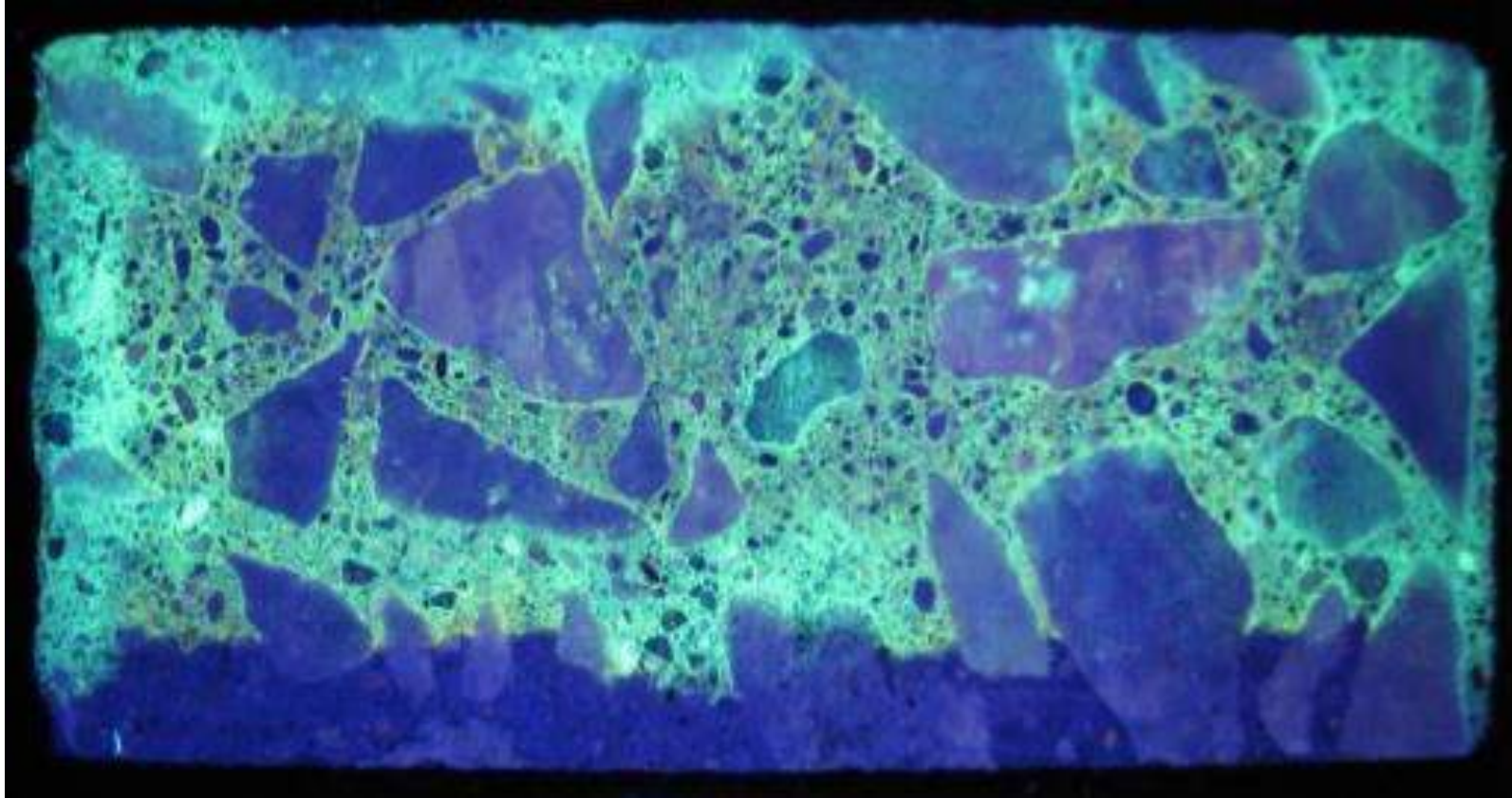


Eventually the film coating integrity is lost, then water and salt penetrate the concrete



PoreShield is absorbed to create a fluid, hydrophobic barrier within the pores

# PoreShield - *A glimpse below the surface*



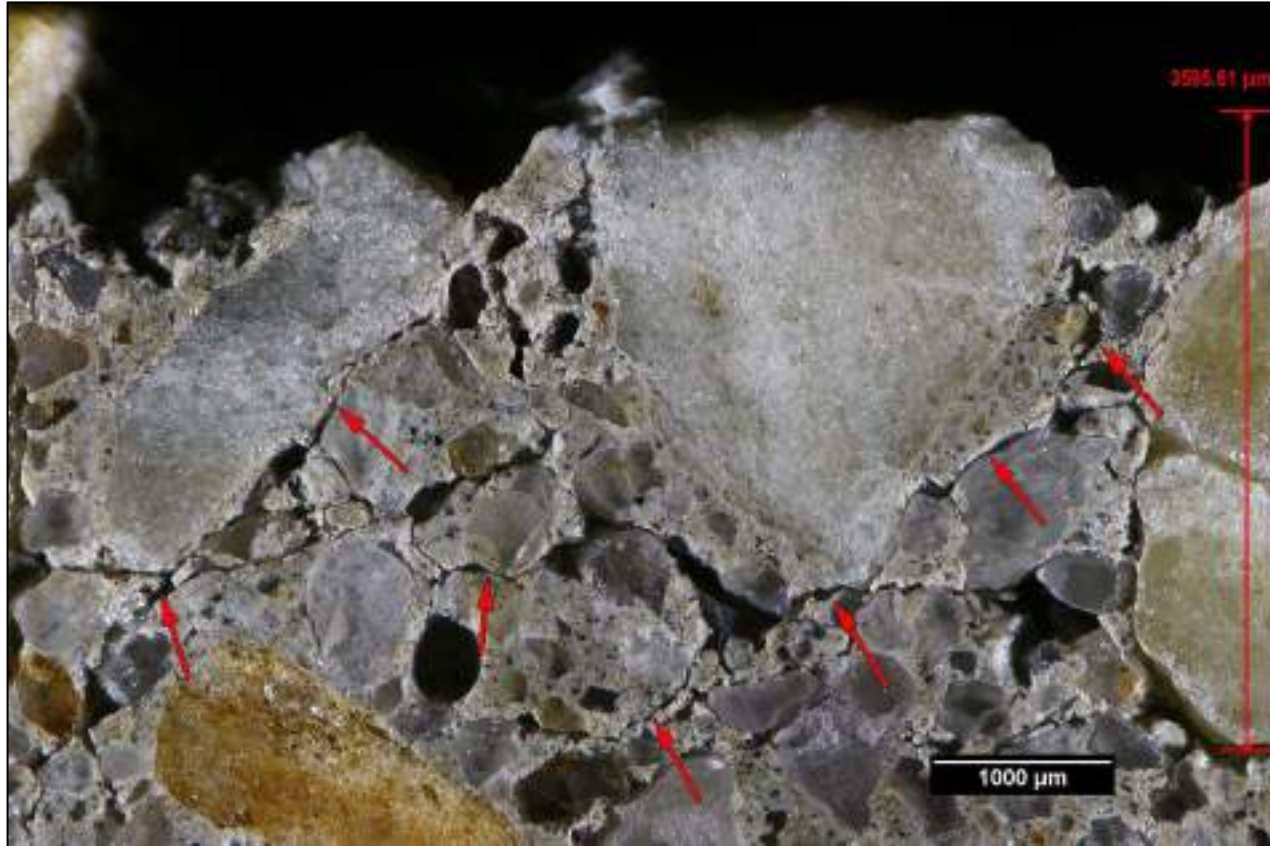
Fluorescent **dye** shows PoreShield filling concrete pores, preventing moisture and ion ingress.

Purdue in 2011; Dr. Jason Weiss and team

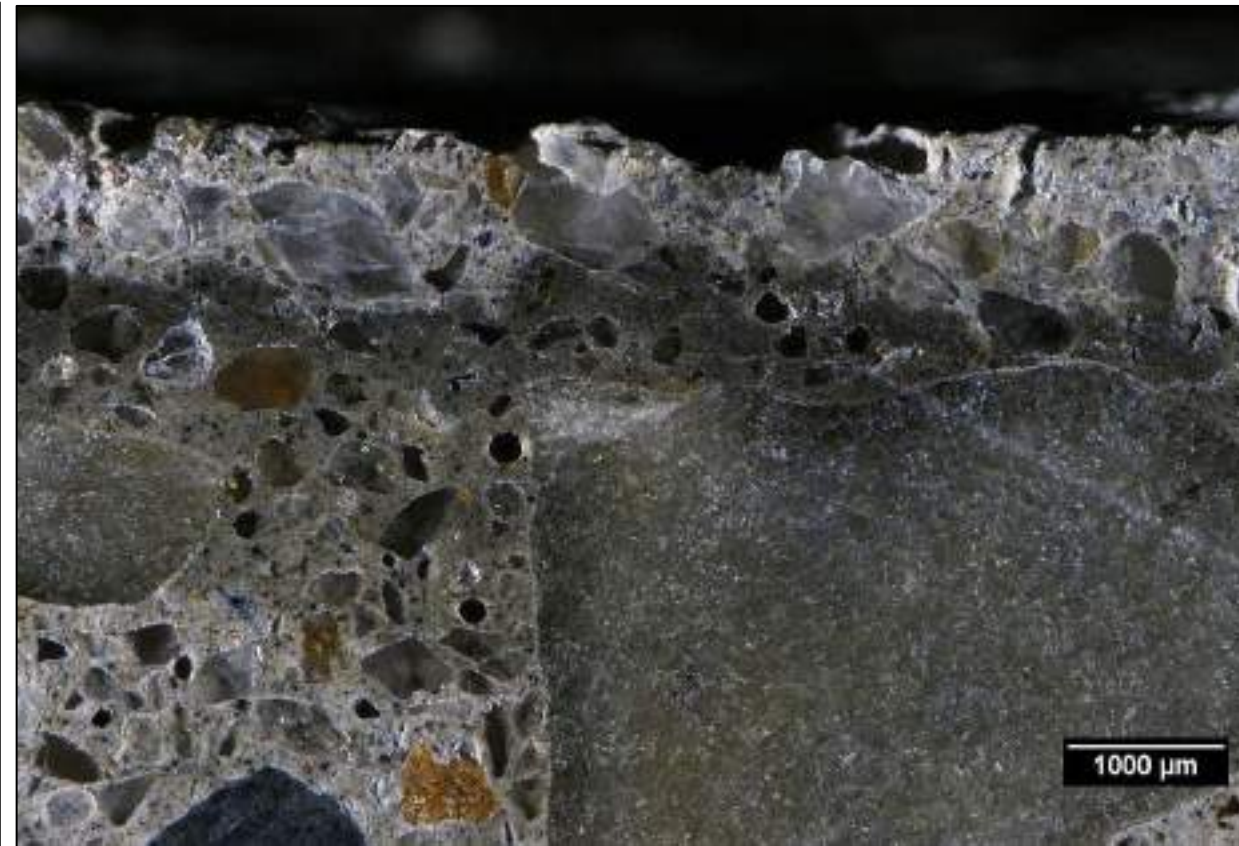
<http://intrans.iastate.edu/app/uploads/2018/08/Joint-Deterioration-Weiss-Nantung.pdf>

# Prevents Salt Deterioration

ASTM C 672 (modified): 10 weeks of daily Freeze/Thaw, 40 g/L CaCl<sub>2</sub>

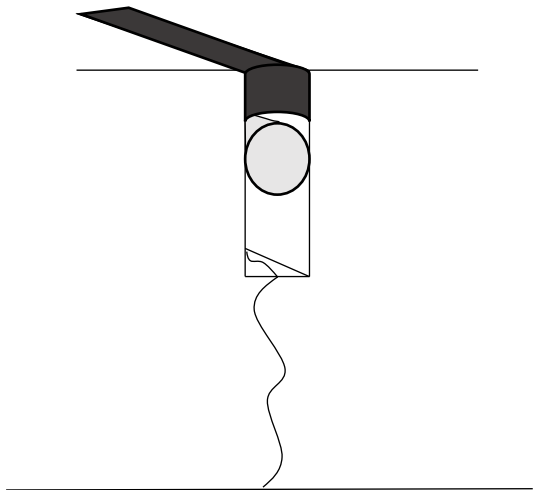
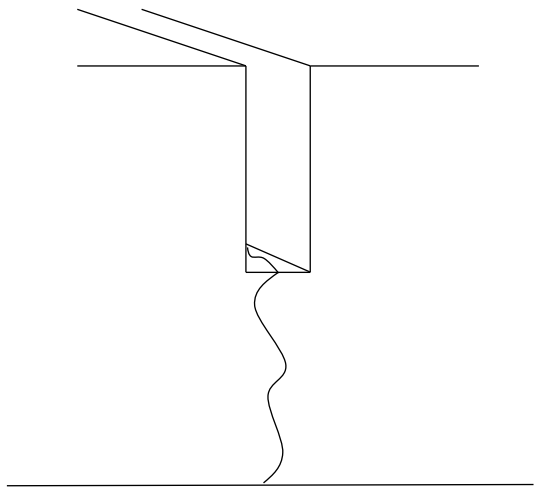


**UNTREATED CONCRETE**  
Interior cracking (**red** arrows)  
>260mg mass loss

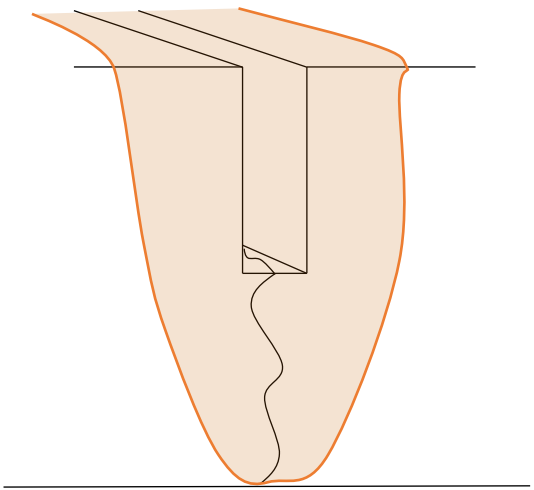


**PoreShield TREATED CONCRETE**  
No interior cracks  
<10mg mass loss

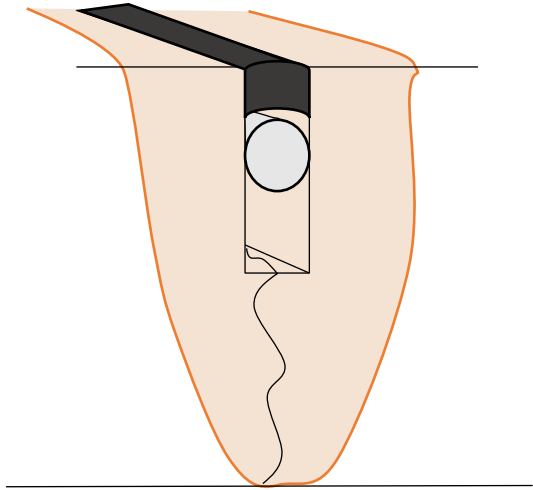
PoreShield fills pores but leaves no film behind, so it can be combined with joint/crack fill products or other products used at the surface



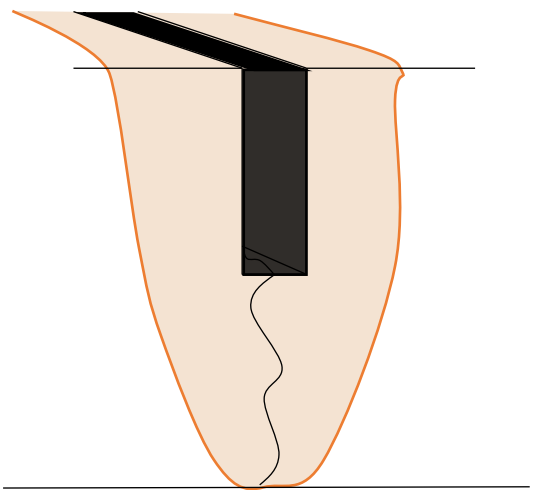
Joint Fill



PoreShield Protection



With Rod/silicone (optional)



With Hot Applied Sealant (optional)

# **PoreShield** *Application to Full Surfaces*



# Easy and Fast Application





# Easy and Fast Application



# Easy and Fast Application



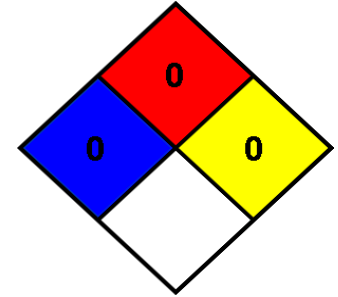
# Easy and Fast Application



# Easy and Fast Application



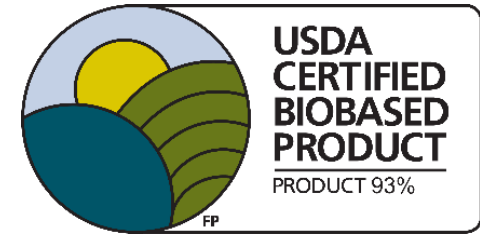
# Safe and Sustainable



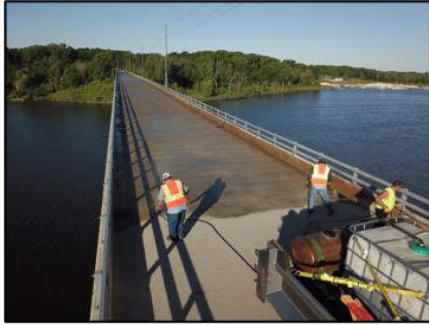
- No concern for overspray into water or land
- No hazardous fumes
- Hazard free SDS

# Safe and Sustainable

- 100% Sourced and Made in USA
- BABA compliant
- Low VOC (43.3 g/L)
- No PPE or training required
- USDA Biopreferred Product



# Wide Range of Applications



Bridge Decks



Highway Joints



Mortar Patch



Precast



Sidewalks, Driveways, Patios



Animal Barns



Buildings



Walls



Garages

**New uses for  
PoreShield  
continue to  
grow**

# Contact Information

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**Questions?**

# Road to Development (SME-PS)

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In 2008, the Indiana Department of Transportation (INDOT) came to Purdue University and the Indiana Soybean Alliance seeking a more durable and sustainable solution to the costly problem of premature highway joint failure. SME-PS has since been branded PoreShield™.



**SME-PS is the patented technology solution from this partnership.**

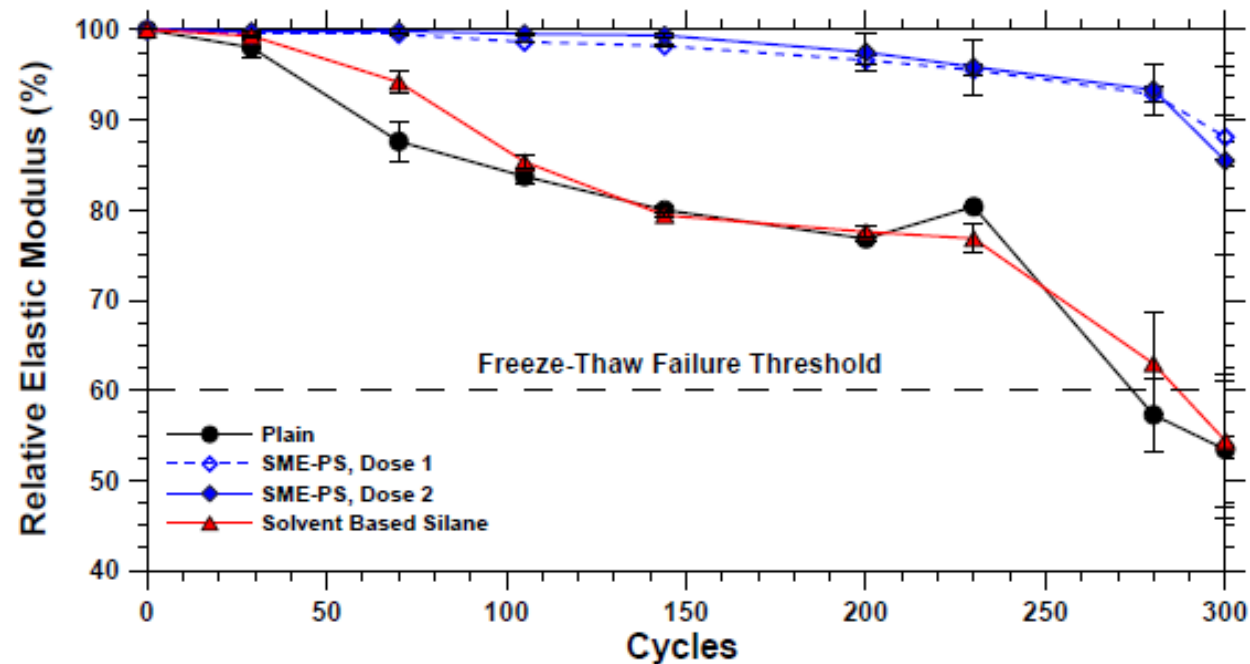
# Strong protection from F/T Cycles

ASTM C 666 (300 cycles)

Intact after 300 freeze-thaw cycles



ASTM 666



Water Absorption Freeze-Thaw experimental results, relative elastic modulus. (PoreShield, SME-PS(blue))\*

\*Golias et al., 2012

# Field Evaluation: 10+ year field results

Applied to 13-year-old, heavily deiced highway



Note: black marks are from removed original joint fill

**PoreShield**



**UNTREATED**

Now 23 years old, PoreShield treated highway protected while untreated joints are deteriorating

# Control Section Deterioration



# Control Section Deterioration





**Treated Section**

(No sign of deterioration)