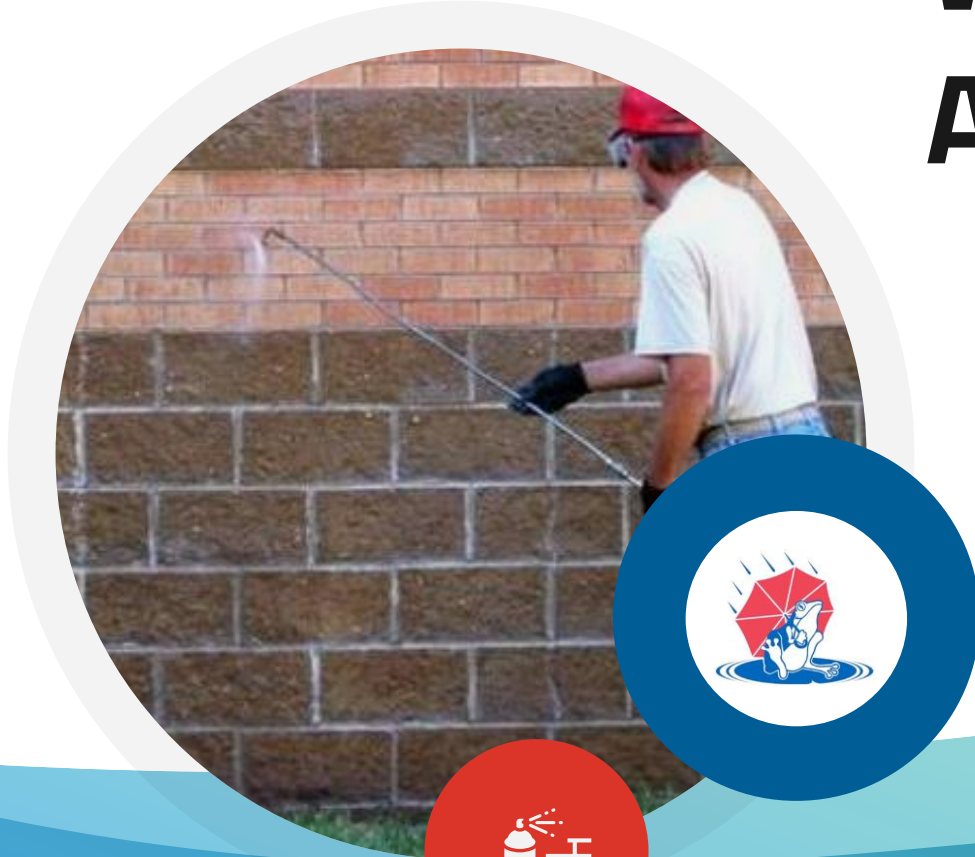


Water Sealant and Anti-Graffiti

PK Professional
PRODUCTS OF KANSAS, INC.



**Professional Products
of Kansas, Inc.**

4456 South Clifton
Wichita KS 67216
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Toll-Free: 800-676-7346
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Web: www.watersealant.com

Is Leaving Your Masonry Unprotected A Good Idea?



Water has long been recognized as the most destructive natural element to masonry structures. Unprotected masonry commonly absorbs water. A 2 ft X 2 ft section of this wall is treated with a water repellent. The area is easily identified when water is applied as it repels the water and remains dry. Notice how the untreated area darkens as the water is absorbed.



**Freeze Thaw
Damage**



**Efflorescence and
calcium carbonate**



**Chemical and
Pollution**

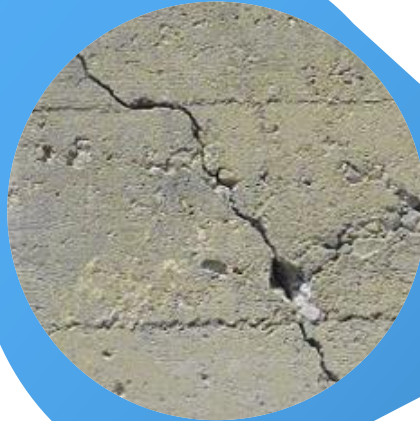


Mold





Freeze Thaw Damage



Cracking

Freeze-thaw damage begins when the water freezes and expands. When expansion is restricted due to saturation, a force capable of producing cracking, or the flaking and chipping known as spalling, is generated.

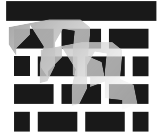
Water
penetrates
freezes and
expands



Spalling

In addition to being an aesthetic issue the integrity of the structure is also affected. If this is left unchecked the problem will only get worse.





Efflorescence and Calcium Carbonate



Efflorescence appears as a white, powdery residue on the surface of concrete or masonry.



In more severe cases it is commonly referred to as building bloom as large areas of the structure are affected.

Over time water causes efflorescence and calcium carbonate, deteriorating concrete and mortar.



Efflorescence is caused by water that migrates to the surface carrying soluble salts. When the water evaporates, the salts are left behind.



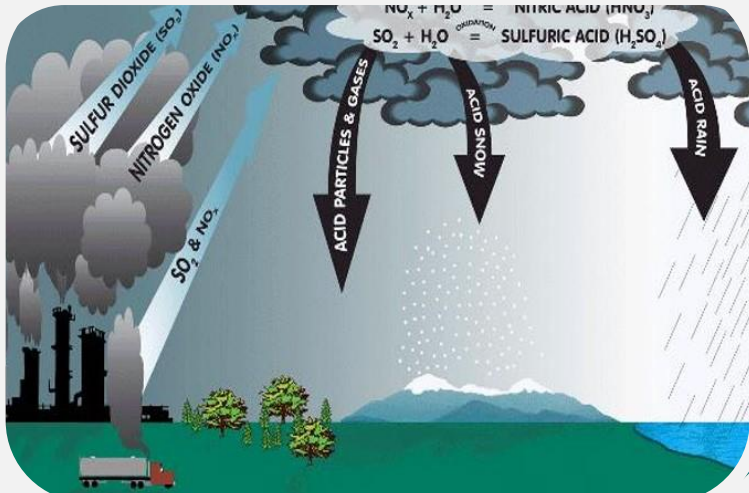
Calcium carbonate stains occur when water migrates to the surface carrying soluble calcium hydroxide that is deposited as the water evaporates.



Chemical and Pollution

Acidic Rain

Sulfates, nitrates, and water combine in the atmosphere to form acids that fall as rain. When acid rain falls on concrete and masonry, it attacks their calcium compounds, causing deterioration.

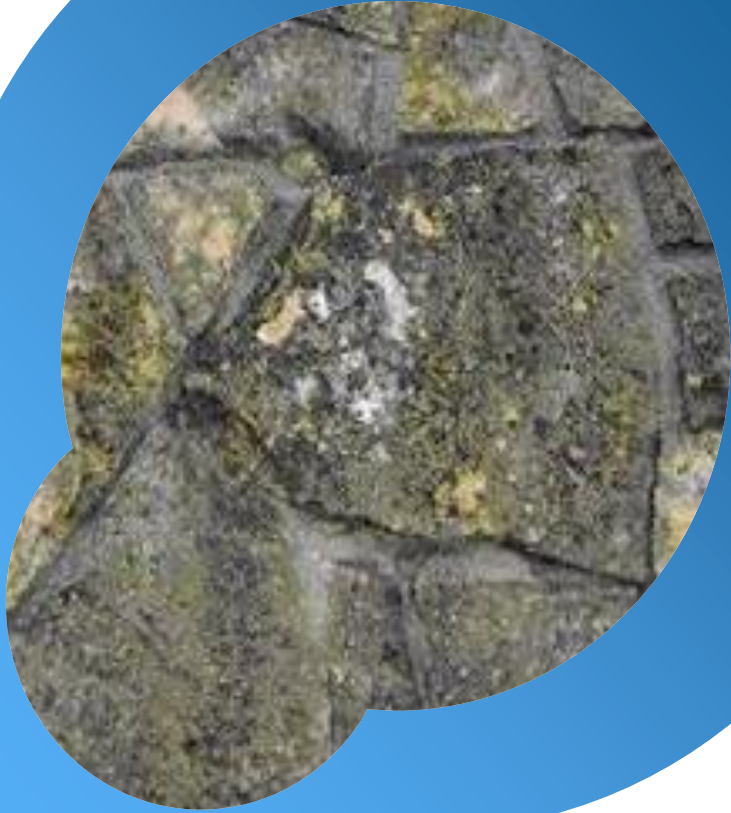


Carbonation

Carbonic acid forms when carbon dioxide mixes with water. If the acidic water penetrates masonry, it will deteriorate and corrode the masonry and reinforcing steel. This process is known as carbonation.

Salt

Chloride ions or salts in rainwater are corrosive to reinforcing steel. When this happens, the reinforcing steel expands and causes the masonry to crack and spall.



Mold Growth

Mold spores constantly circulate in both indoor and outdoor air and will grow on any surface that provides moisture and a source of food. It appears as a wooly growth in damp stagnant areas. Not only is it a health concern but, left untouched, it will break down masonry surfaces. Since mold is dependent upon moisture the best way to control its growth is to control the moisture

Graffiti Protection

By applying the Anti-Graffiti prior to vandalism, it establishes a long-lasting, non-sacrificial barrier which prevents paint penetration. Non-sacrificial means that treated surfaces can be tagged and cleaned repeatedly with no requirement to reapply the graffiti barrier. This allows for the repeated cycles of graffiti removal using a citrus based, bio-degradable cleaner without affecting the graffiti barrier. Sacrificial graffiti barriers must be reapplied each time graffiti is removed resulting in additional material and labor costs.



01

Save time

With easier graffiti removal

02

Save money

By not having to reapply every time

03

Better for the environment

Using a less caustic removal method

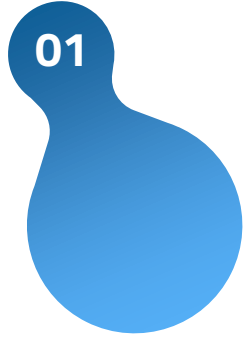
04

More attractive city

Making it easier to keep tags off structures



How Does PPK Protect?



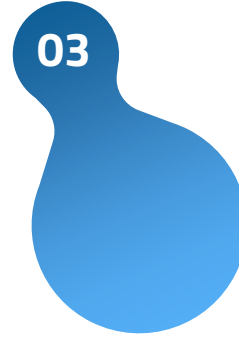
Penetrates

RTV liquified silicone rubber penetrates below the surface of porous material



Fills Pores

Pores are filled with the liquified rubber and the solvent carrier evaporates



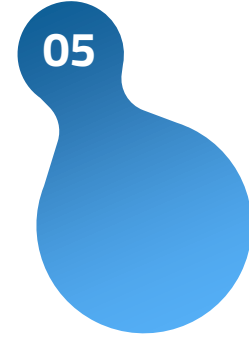
Bridges Hairline Cracks

Hairline cracks are filled as the cured rubber elongates up to 400%



Cures Clear

Atmospheric moisture cures the product to a transparent barrier below the surface



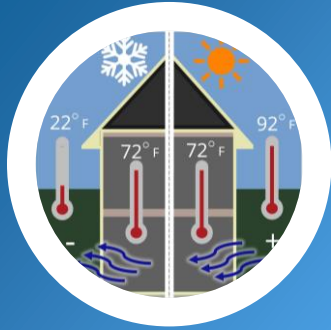
Doesn't Degrade

Weathering and UV light do not degrade the cured silicone rubber

Sample Customers

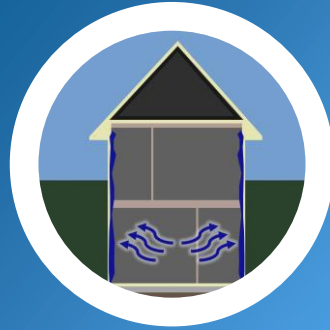


Breathability



Vapor Transmission

Warm, moist air typically travels to areas where the air is cool and dry.



Non-Breathable Water Repellents

If moisture is trapped in the substrate as it tries to pass in the form of vapor, the build up can result in freeze-thaw damage and delamination of the coating.



PPK Breathable Water Repellents

It is essential that only breathable water repellents be applied to above grade masonry surfaces. This is due to the significant amount of moisture generated from normal day-to-day activity.

Water repellents are considered breathable if they do not restrict concrete and masonry's ability to pass moisture vapor.



Test Data

TEST	PURPOSE	LABORATORY	RESULTS
AASHTO T-259	Measure the resistance of concrete treated with PROFESSIONAL® Water Sealant to Chloride Ion Penetration	United States Testing Company, Inc. Tulsa Division	Untreated concrete had 15 times the Chloride Ion content than concrete treated with PROFESSIONAL® Water Sealant
ASTM 793-75	Measure the effects of accelerated weathering on Silicone Rubber	General Electric Company	After a total of 4000 hours, the silicone rubber showed no signs of deterioration. It was estimated that 4000 hours of accelerated weathering is equivalent to 30 years of actual weathering in the field.
ASTM E-303	Measure surface frictional properties of concrete treated with PROFESSIONAL® Water Sealant	United States Testing Company, Inc. Tulsa Division	No significant change was noted in the frictional properties of concrete after treatment with PROFESSIONAL® Water Sealant
ASTM E-514	Measure the water penetration and leakage through masonry surfaces treated with PROFESSIONAL® Water Sealant	Olympic Scientific, Inc.	Masonry surfaces treated with PROFESSIONAL® Water Sealant allowed no water penetration
ASTM E-514-90	Measure the water penetration and leakage through carib brick and S mortar treated with PROFESSIONAL® Water Sealant	Olympic Scientific, Inc.	Carib brick and S mortar treated with PROFESSIONAL® Water Sealant allowed no water penetration
ASTM E-96	Measure the water vapor permeability of brick treated with PROFESSIONAL® Water Sealant	GEOSCIENCE LTD	Brick samples treated with PROFESSIONAL® Water Sealant retained 86% of their water vapor permeability capabilities



Gallery Of Customer Applications



Clover Island Lighthouse
Kennewick, WA



Stadium High School
Tacoma, WA



Wichita Rail Corridor
Wichita, KS



St. Thomas Church
St. Thomas, MO



St. Stanislaus Church
Wardville, MO



Santa Fe Middle School
Newton, KS



Exploration Place
Wichita, KS



Arcus Stone
Lake of the Ozarks



Alderwood Mall
Lynwood, WA



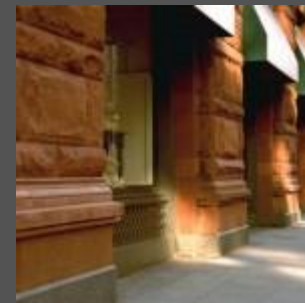
Government Grounds
Manitoba, Canada



St. Joseph Church
Westphalia, MO



Lockport Bridge
Manitoba, Canada



National Audubon Society
New York, NY

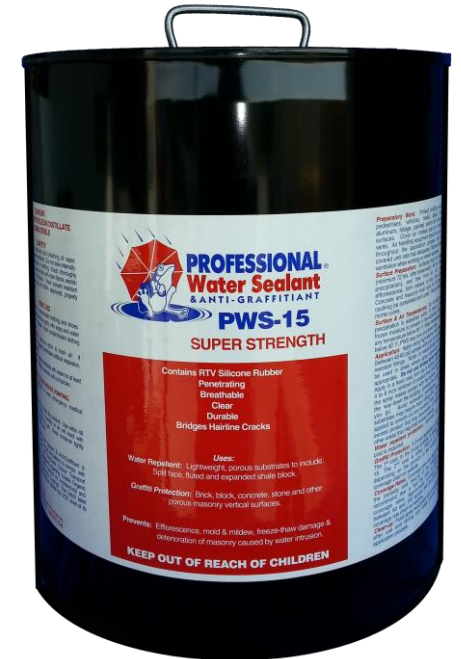


BNSF Tunnel
Spokane, WA



PWS Product Line

5 gallon pails are shown. Also available in 1 gallon, 1 quart, and ½ pint containers. Compliant with all VOC regulations.



Water Repellent

Used for hard fired brick, poured concrete, most horizontal surfaces

Used for very porous brick and concrete, stucco, sandstone and limestone

Used for split face, fluted, expanded shale and other extremely porous block



Anti - Graffiti

X

Used as the second coat for brick, concrete, stucco, sandstone and limestone.

Used as the first coat for all vertical surfaces. Used as the second coat for split face, fluted, expanded shale and most other concrete block.

Thank You

Visit here us

www.watersealant.com

PROFESSIONAL
Water Sealant
& ANTI-GRAFFITIA