SIL-ACT® Product Data

SIL-ACT PCI-100

ADVANCED CHEMICAL TECHNOLOGIES, Inc.

"ProtectingtheWorld'sInfrastructure"

PENETRATING CORROSION INHIBITOR

DESCRIPTION

SIL-ACT® PCI-100 is a dual organofunctional surface applied corrosion inhibitor and penetrating sealer. The combination of the proven technologies provides a deep hydrophobic layer of protection to the concrete and anti-corrosion protection to the reinforcing steel.

USES

SIL-ACT® PCI-100 is designed to be applied to concrete surfaces. It is recommended for all steel-reinforced, prestressed, precast and post tentioned concretes.

- Bridges and highways
- Parking garages
- Piers, piles and concrete dock structures
- Seawalls

ADVANTAGES

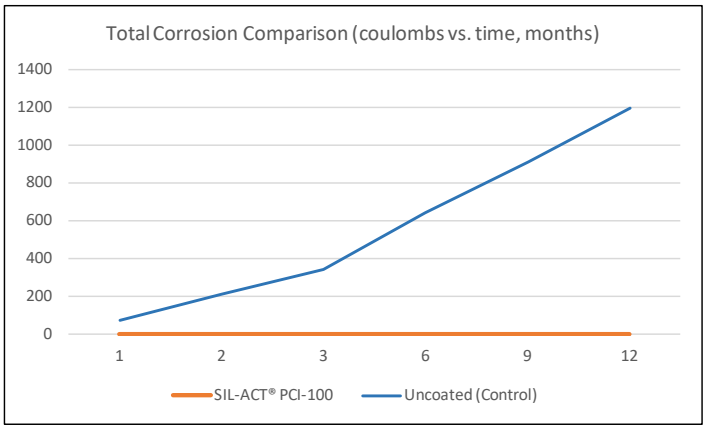
- Deep hydrophobic layer of protection
- Excellent resistance to water intrusion
- Proven anti-corrosion additive for steel reinforcement
- Easy to apply
- VOC compliant
- Maintains vapor permeability of concrete
- Excellent resistance to chloride ion ingress
- Reduces micro cell and macro cell corrosion
- Ready to use
- Fast dry

PERFORMANCE DATA

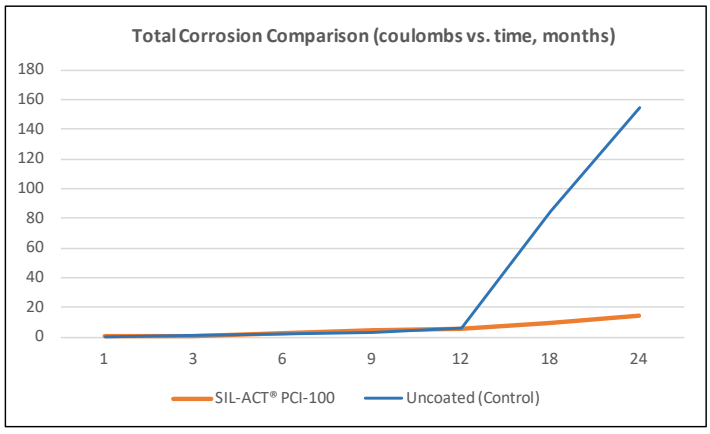
FHWA-HRT-07-043 cracked beam specimens coated with SIL-ACT® PCI-100 resulted in <1% of visible corrosion showing on the top rebar after 12 months of testing while the uncoated specimens resulted in 67% visible corrosion showing on the top rebar after 12 months of testing.

After 24 months of testing, ASTM G109 testing resulted in SIL-ACT® PCI-100 displayed <1% of visible corrosion coverage on the top embedded steel reinforcement bars, while the uncontrolled specimens displayed an average of 17% corrosion coverage on the top embedded steel reinforcement bars. Additionally, the average chloride levels at the top rebar locations was 0.119% for the SIL-ACT® PCI-100 specimens, while the average chloride levels at the top rebar locations was 0.367% for the uncoated control specimens.

FHWA-HRT-07-043 Cracked Beam Test (results after 12 Months)



ASTM G109 StandardTest (results after 24 Months)



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version 003

TECHNICAL DATA

PROPERTY	TEST	PCI-100
Active Ingredients		Alkyltrialkoxysilane Migrating Corrosion Inhibitor
Specific Gravity		0.92
Density		7.68 lb/gal
Appearance		Clear
Surface Appearance after Application		Unchanged
Drying time at 70°F		30 minutes
VOC Content	Method 24, ASTM D-5095	< 400 g/L
Absorption Reduction	ASTM C-642	93% @ 48 hours
Chloride Reduction	AASHTO T259/T260	90.6% @ 0.5 in. 87.7% @ 1.0 in.
Scaling	ASTM C-672	0 @ 50 cycles
Chloride Reduction	NCHRP 244 Series II	90.5% @ 5 days air dry
Water Absorption	NCHRP 244 Series II	91.2% @ 5 days air dry
Chloride Reduction	NCHRP 244 Series IV	90%
Cracked Beam	FHWA HRT-07-043	<1% - 12 months
Uncracked Beam	ASTM G 109	<1% after 24 months
Waterproofing after Abrasion	Alberta Transportation & Utilities 1b	86.1%

INSTRUCTIONS

1. Test a small area prior to general application to ensure compatibility, desired results and coverage rates.
2. Treatment is most effective when the surface to be treated is clean and dry. Remove dirt, dust, oil, grease, curing compounds, coatings and other surface contaminants. Water blasting, sandblasting or shotblasting may be required.
3. Do not proceed unless surface and air temperature is between 20°F and 100°F. Do not apply on wet concrete or if rain is expected within 5 hours after application. Allow concrete to dry between 24 and 72 hours after rain or cleaning with water. Do not apply if frost, ice, or standing water are visible on the surface to be treated.
4. Spray, brush or roll SIL-ACT® PCI-100 on surface to be treated at the recommended application rate. Multiple coats are recommended. Most applications require two to three coats at 125 to 250 square feet per gallon. Allow a minimum of 15 minutes between coats (or until visibly dry). Contact your Advanced Chemical Technologies representative for spray equipment options.
5. Apply to saturation. When spraying at low pressure, if necessary follow with broom or squeegee for even distribution.
6. Avoid unnecessary overspray. If necessary, clean overspray areas with a clean dry cloth, soap and water or alcohol. Protect plants and vegetation from overspray. Prior to SIL-ACT® PCI-100 application, check for preexisting contamination.
7. Clean equipment with SIL-ACT® Equipment Cleaner .
8. Partially used containers should be properly sealed and protected from contamination by water or other foreign substances.

WARRANTY

Limited warranties are available for all SIL-ACT® products. Contact ACT or your local SIL-ACT® representative for details.