

TECHNOBUILD PCI 220

Penetrating Corrosion Inhibiting Coating

DESCRIPTION

PCI 220 is a surface applied, migrating corrosion inhibitor designed to penetrate through cementitious materials including concrete, mortar, and limestone. PCI 220 migrates in both liquid and vapour (gas) phases through the pore structure, forming a protective, molecular layer on embedded reinforcement. PCI 220 provides corrosion protection against carbonation, chlorides, and other contaminants. PCI 220V is a high viscosity version of PCI 220 which is specifically designed for vertical and overhead applications.

HOW IT WORKS

PCI 220 is organic corrosion inhibitors. They are considered ambiodic (mixed) inhibitors which means they protect both anodic and cathodic areas within a corrosion cell. PCI 220 contain a synergistic blend of amino-alcohols and salts of carboxylic acids which form a protective layer on embedded reinforcement delaying the onset of corrosion as well as reducing existing corrosion rates.

WHERE TO USE

PCI 220 is recommended for:

- Preventative maintenance of existing reinforced, precast, pre-stressed, post-tensioned, or marine concrete structures
- Bridges, highways, and industrial floors exposed to aggressive environments (chemicals, salts, carbonation, atmospheric attack)
- Parking garages
- Concrete piers, dams, offshore platforms, piles, pillars, pipes, utility poles, and cooling towers
- Concrete potable water structures
- As a component of TECHNOKOTES's High Performance Repair System (HPRS)

ADVANTAGES

PCI 220 offer engineers, owners, contractors, DOTs, and other government agencies a time proven, corrosion inhibiting technology that will extend the service life of their reinforced concrete structures.

- Protects against corrosion caused by carbonation, chlorides, and other aggressive contaminants
- Effectively reduces corrosion rates on metals with existing corrosion
- Non Toxic for structures containing potable water
- Water based and non-flammable
- Does not etch, stain, discolour, or otherwise harm glass, metals, or automotive paint
- Does not contain calcium nitrite
- Does not contain wax
- Does not require removal of sound concrete
- Allows vapour diffusion (not a vapour barrier)
- Easily applied by spray, brush, or roller
- Minimal curing time, traffic may resume minutes after application if necessary (dry to touch)
- Migrates independent of orientation (horizontal, vertical, overhead)
- Migrates up to 3 inches in 30 days
- Proven performance in both lab and field testing
- PCI 220 V available for vertical and overhead surfaces

PHYSICAL PROPERTIES

Appearance	Clear to slightly hazy, amber liquid
pH	9.0-9.5 (neat)
Density	1.03-1.05 kg/l
Shelf Life	24 months in sealed container
Storage	0°C - 60°C Do NOT Freeze

COVERAGE

PCI 220 is applied in a single coat at 3 m²/Kg to horizontal surfaces. It is applied in two coats at 6 m²/Kg to vertical and overhead surfaces. PCI 220V is applied in a single coat at 3.68 m²/Kg on most surfaces. In the case of extremely dense overhead surfaces, it can also be applied in two coats at 6 m²/Kg.

PACKAGING

20, 200 Kgs HDPE drums.

PCI 220 are also available with a blue fugitive dye which helps to easily identify treated areas.

SURFACE PREPARATION

Surfaces should be dry, clean, and free of all oil, grease, efflorescence, water repellents, coatings, membranes, and asphalt. Cleaning may be done by steam cleaning, water-blasting, or sandblasting.

APPLICATION

Apply PCI 220 by spray (conventional airless or hand pressure spray equipment), brush, or roller according to coverage rates listed above. If applying more than one coat, allow the surface to dry enough between applications so that the second coat penetrates into the surface within 15 minutes. When applying a water repellent, coating, repair mortar, or overlay over PCI 220, the surface should be rinsed with water, pressure washed or blast-cleaned to remove any residue unless prior adhesion testing has been performed. Consult product specifications for more detailed application instructions.

CONSIDERATIONS

- Substrate and ambient temperature should be above 2°C and below 50°C
- Do not apply if temperature is expected to fall below 0°C within 12 hours after application
- PCI 220 will not penetrate water repellents, coatings, paints, membranes, or asphalt
- If structure will be submerged after application of PCI 220, it is recommended to use a waterproofing coating over PCI 220 prior to submersion
- Maximum chloride content at the depth of reinforcement in structures being treated with PCI 220 is 3.5 kg/m³. For higher levels, consult TECHNOKOTES technical service
- Do not apply if precipitation is expected within 8 hours after application

GUARANTEE / WARRANTY:

TECHNOKOTES products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with TECHNOKOTES written instructions and (b) in any application recommended by TECHNOKOTES, but which is proved to be defective, will be replaced free of charge. Any information provided by TECHNOKOTES in this document in relation to TECHNOKOTES's goods or their use is given in good faith and is believed by TECHNOKOTES to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. TECHNOKOTES makes no representation, guarantee or warranty relating to the accuracy or reliability of the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

TECHNICAL SERVICES

For more information concerning the working, application and compatibility of **TECHNOBUILD PCI 200** treatments with or without other products or technologies, contact the Technical Department of TECHNOKOTES.

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