

PeneSeal CWP

Crystalline Waterproofing System



STP Limited

Description

PeneSeal CWP is crystalline waterproofing slurry for concrete substrates. **PeneSeal CWP** is economic and easy to apply. **PeneSeal CWP** becomes integral part of concrete. **PeneSeal CWP** is equally strong against negative side water pressure. **PeneSeal CWP** creates a reactive layer inside the concrete that allows the structure to self-heal shrinkage cracks under concrete with water.

Characteristics

Colour	Grey	Density, kg / L	1.2	
Mixing ratio (Peneseal CWP : Water) • By Weight • By Volume	100 : 23 100 : 28	Chloride Ions, %	< 0.05	
		Substrate temperature °C	5 – 35	
		Restrained shrinkage, MPa	2.8	
Compressive Strength, MPa • 4 hr • 24 hrs • 7 days • 28 days	8 21 35 51	Flexural Strength, MPa • 4 hr • 24 hrs • 7 days • 28 days	1 4 5 7	
			Adhesive strength, MPa	2.8
			Carbonation resistance	Passed
			Capillary water absorption kg / m ²	0.4
Water Permeability Test, cm / sec • Control (Untreated) • PeneSeal CWP 14 days old • PeneSeal CWP 28 days old	1.8 x 10 ⁻¹¹ 2.1 x 10 ⁻¹³ 21.9 x 10 ⁻¹⁴	Theoretical Coverage, kg/m ² / coat waterproofing concrete by brush application * • 1 st coat • 2 nd coat	0.8 0.7	

* Depending upon surface condition.

Application

- Waterproofing of basement and below grade parking structure.
- Water retaining structures and containment walls.
- Swimming pool, reservoirs.
- Basements, tunnels, machine / lift pits, reservoirs, concrete walls.
- Portable water structure.
- Sewage water structure.

Advantages

- Becomes an integral part of the concrete structures instead of merely being a surface coating or membrane that can damage or delaminate.
- Penetrates deep into the capillary tracts and shrinkage cracks and can seal both positive and negative side of concrete structure. Penetration is subject to the porosity of the concrete.
- Un-reacted chemicals remain active and will react in contact with water providing additional protection against leakage.
- Protects against water borne corrosive chemicals that can cause corrosion of reinforcement.
- Does not require special protection during back filling, placement of reinforcement or other procedures necessary to protect a surface type waterproofing systems.
- Good Resistance to aggressive media with pH3 – 12 and against soft water with low ion content.
- Potable water approved.
- Crack bridging capacity upto 0.4 mm.

- Open to foot traffic in 4 hrs.
- Can be applied on 7 days old concrete.
- Shrinkage compensated, no spider – web cracking.

Application Methodology

- Ensure that structure is sound and free from dirt, soil, oil release agents, laitance and any other foreign materials which may impair the bond, penetration and/ or the overall performance of **PeneSeal CWP** .
- In case of smooth concrete surface, the surface should be water / sand blasted or acid etched to ensure that the concrete surface has an open capillary system.
- In case of any crack, cut “V” grooves with suitable cutter machine and fill with Crystiline mortar in the ratio 1:1:4 (cement : PeneSeal CWP : Sand).
- Make gola of 75x75 mm with crystalline mortar and apply the same at intersection.
- Treat active water leaks to full stop water ingress.
- **PeneSeal CWP** can be applied:-
 - **Brush Application**
 - Mix **PeneSeal** with 23% potable water (i.e. 5.75 L water / 25 Kg bag). Fill the complete mixing water into a suitable bucket and mix the powder with a slow speed drill (300 – 600 rpm) into the water until a lump-free mix with a consistency of an oil paint is achieved.
 - **Spray Application**
 - Mix **PeneSeal** with 23% potable water (i.e. 5.75 L water / 25 Kg bag). Fill the complete mixing water into a suitable bucket and mix the powder with a slow speed drill (300 – 600 rpm) into the water until a lump-free mix with a consistency of an oil paint is achieved. The water addition may be reduced slightly to get a more thixotropic mix.
 - **Dry-shake Application**
 - **PeneSeal** can be applied in powder form onto concrete before finishing the surface. **PeneSeal** is applied uniformly onto the concrete and then finished with a helicopter trowel.

Health & Safety

- Use mask, nose cover and hand gloves during application.
- Clean hands with soap water after application.
- Avoid contact with skin / eyes. In case of unlikely contact with eyes, rinse immediately with plenty of clean water, then cleanse with soap and lukewarm water and seek medical advice. Do not use solvent to clean the contacted area.
- Prevent swallowing. In case of unlikely swallowing, seek medical attention immediately. Do not induce vomiting.

Packing

Available in 25 kg bag.

Storage

Store in a cool dry place (5 to 35 °C), under shed, away from heat.

Shelf Life

12 months in original unopened sealed condition.



Advisory Cell
STP Limited
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