

PeneSeal[®] CWP

Crystalline Waterproofing Additive For Cement



STP Limited

Description

PeneSeal[®] CWP, additive for cement, is crystalline waterproofing compound 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	Pot Life, 30 °C, minutes Theoretical Coverage, kg/m ² / coat waterproofing concrete by brush application * • 1 st coat • 2 nd coat	20 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® CWP** 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® CWP** 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® CWP** can be applied in powder form onto concrete before finishing the surface. **PeneSeal® CWP** is applied uniformly onto the concrete and then finished with a helicopter trowel.

Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, 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
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Waterproofers to the Nation

STP's Businesses
Waterproofing & Insulation
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