ASIAN LABORATORIES
CONSTRUCTION CHEMICAL MANUFACTURERS

88, New Okhla Industrial Complex, D.S.I.D.C. Shed, Scheme-I, Phase-II, New Delhi – 110020
Phone: 011- 26386063, 011- 26386507
Email: asianlab88@gmail.com / marketing@asianlaboratories.com / info@asianlaboratories.com

Product Information: CEMWET SP-3000 PCE-21

Ultra-High Strength Superplasticizer & Accelerating Admixture for Pre-Cast Concrete

Description:

CEMWET SP-3000 PCE-21 is an admixture of a fourth Generation based on Poly Carboxylic ether polymer with high early strength gain. The molecular structure allows their delayed absorption onto the cement particles and disperses them effectively over a long period of time. This imparts retention of workability for longer time. This molecular structure on the other hand allows rapid cement hydration reaction resulting in high early strength development. CEMWET SP-3000 PCE-21 is free of chloride & low alkali. It is compatible with all types of cements.

Primary Uses:

- CEMWET SP-3000 PCE-21 is suitable or making precast concrete elements at all workability's including self-compacting concrete having fluid consistency, no segregation. A low water binder ratio produces durable high-performance concrete. This can be blended with ASIAN-VMA viscosity modifying admixture to produce Rheodynamic concrete to place concrete in dense reinforcement without vibrations for precast elements.
- Ultra-high early strength is achieved which helps in early demolding of Precast elements and eliminating steam curing.
- Concreting in Cold Weather.

Specialty:

- CEMWET SP-3000 PCE-21 maintains workability for more than 30-60 min even at low water binder ratio.
- Achieve Ultra high early strength in 8 hours without thermal curing .
- Dosage is low as compared to conventional PCE available.
- Produce durable precast concrete elements.
- Suitable for producing High early strength concrete for Highspeed Railways and special concrete (such as subway segment concrete).
- Superior finishes with reduced honeycombing.

Dosage:

Typical dosage is 0.4 to 1.4% of cementitious binder is recommended because of variations in concrete materials, job site conditions and/or applications, dosages outside of the recommended range may be required.

Effects of over dosage:

A severe over dosage of CEMWET SP-3000 PCE-21 can result in the following:

- Bleed/segregation of mix
- Air entrainment
- Increased plastic shrinkage

A slight overdosing may not affect the ultimate strength of the concrete and can achieve higher strength than normal concrete.

Typical Properties:

Colour: Light yellow to Brownish coloured liquid.

Specific gravity: 1.10 ± 0.020 *

Chloride content: NIL to B.S 5075 to IS:456-2000.

Air Entrainment: Maximum 1.5% of control as per IS:9103-99

pH: Minimum 6.0*

Solid content: not less than 31.0%

* The uniformity parameters like specific gravity, Ph, etc. will vary for specific customer requirements and mix design. Please refer our MTC issued for specific product configuration for measuring product parameters.

The table below shows an example of the acceleration effect of CEWMET SP-3000 PCE-21 for a Railway Project: -

Concrete Mix	**M-40**		**M-50 Precast Concrete**	
Admixture	**Reference**	**CEMWET SP-3000 PCE-21**	**Commercial PCE**	**CEMWET SP-3000 PCE-21**
Cement OPC- 53 Grade	400	400	420	420
River Sand Zone- II	809	809	680	680
Aggregate 10mm passing	1034	1034	1220	1220
Water	150	150	130	130
W/c Ratio	0.39	0.39	0.309	0.309
CEMWET SP-3000 PCE-21 (% of cement)	NIL	0.5	0.8	0.5
Mixing & filling of molds	30 min at 25° C		--	--
Workability (Initial) After 30 min	Semi - Dry --	15 mm --	150 mm 110 mm	170 mm 150 mm
Compressive Strength (Demolding at 8hours) (Mpa)	NIL	30	8.4	17.6
Compressive Strength (Demolding at 16½ hours) (Mpa)	5	35	--	--
7 Days (Mpa)	42.5	45	51.8	57.2
28 Days (Mpa)	50.3	54.9	63.4	68.6

Packaging:

CEMWET SP-3000 PCE-21 is supplied in 220kg HDPE Barrels or in Bulk on request.

Storage:

Shelf life of 12 months

Safety Precautions:

CEMET SP-3000 PCE-21 contains no hazardous substances

PRICE, PERIOD OF DELIVERY AND TERMS OF BUSINESS ON REQUEST

Manufactured By:

ASIAN LABORATORIES