

Asian Laboratories

88, NEW OKHLA INDUSTRIAL COMPLEX, SCHEME-I, D.S.I.D.C. SHED, PHASE-II, NEW DELHI-110 020

Phone : 26386507
26386392

E-mail : asianlab88@gmail.com
Telefax : 011-26386063

CEMWET SP - 3000 (NR)



HIGH RANGE WATER REDUCING SUPER PLASTICIZER FOR LONG RETENTION OF SLUMP

DESCRIPTION :

The Basic component of CEMWET SP-3000 (NR) are Synthetic polymers with high molecular weight Naphthalene Formaldehyde condensate which allows mixing water to be reduced considerably. CEMWET SP-3000 (NR) is a chloride free product having prestigious mark of IS 9130-99. The product is high quality admixture produced by maintaining stable quality control and is provided with performance assurance certificate whenever required.

PRIMARY USES :

- Production of Plastic self compacting concrete.
- Ready Mix Concrete.
- Low water cement ratio concrete
- Suitable for Road construction in PQC concrete
- Suitable for high C3A and high fineness Cement like Ambuja, Ultratech 53 Grade.
- Excellent Performance in concrete Mixes used for Bridges, High rise Building, off-shore and marine structure, precast and prestressed structures tunnels etc.

ADVANTAGES :

CEMWET SP-3000(NR) makes the concrete highly flowable with low water/cement ratio. The concrete treated with CEMWET SP-3000 (NR) shows strength higher than concrete without admixture having the same workability

SPECIALITY:

CEMWET SP-3000 (NR) can maintain slump of concrete for more than two hours especially for High C3A 53 Grade cement where normal Super Plasticizer do not work. CEMWET SP-3000 (NR) Satisfies ASTM C-494 Type G at normal dosage. However at higher dosages it can extend setting time without affecting later date compressive Strength. Due to the reduction in water/cement ratio, all the properties of hardened concrete improve significantly, creep, work ability & modulus of elasticity.

COMPATIBILITY:

CEMWET SP-3000 (NR) is compatible with all Cement especially high C3A (>8) and high fineness Cement (>2700 Cm/g) viz: Ultratech, Shree, ACC 53 grade Ambuja cement. Low C3A cement, Sulphate Resistant cement, Slag cement requires smaller dosages

DOSAGES:

Recommended dosage is 0.3% to 1.5% by wt. of cement

PACKING:

250 Kg drums. Bulk deliveries in tankers are available on request.

TYPICAL PROPERTIES :

- Colour** : Brown Free Flowing Liquid
Specific Gravity : 1.22 ±0.020
Chloride Content : NIL (BS 5075) satisfies IS 456-2000
Air Entertainment : Maximum 1.5% of Control as per IS:9103-99
Water Reduction : More than 25%
Compressive Strength : By designing concrete mixes admixed with the admixture and water reduction upto 35% and cement content ranging from 270 to 470 Kg/m³, it has been possible to retain slump of concrete upto two hours and achieve high early and long term strength. However, the composition of cement, type and grading of sand, dosage of the admixture and water reduction are the important factors that play part in designing the concrete mixes and should be considered for achieving plasticity, durability and high strength of the concrete

HEALTH & SAFETY

- CEMWET SP-3000 (NR) is a concrete plasticizer, containing organic polymers
- Prolonged contact with Super Plasticizer may effect people with sensitive skins
- Avoid skins and eye contact. Wear Suitable protective clothing, gloves and eye protection.
- Skin Exposure, rinse immediately with plenty of water, if irritation develops, seek medical advice.
- Ingestion : Give plenty of water to drink, If unwell, see medical advise.

FIRE | EXPLOSIVE RISKS

- CEMWET SP-3000 (NR) is non flammable.

SPILLAGE

- If spillage occurs dilute with water and splash of

SHELF LIFE:

- Shelf life is minimum 12 months in manufactured sealed drums

TYPICAL EXAMPLE OF SOME LEAN CONCRETE MIXES : -

Grade of Concrete	M-25	M-35	M-40	M-45
Mix	—	—	—	—
Ambient Temp.	35°C	31.1°C	30.1°C	29.5°C
Concrete Temp.	34°C	35.2°C	34.3°C	31.6°C
Cement (Kg/m ³)	278	410	450	440
Fly Ash	110	—	—	—
Microsilica (Kg/m ³)	—	—	—	—
Sand Zone-II (Kg/m ³)	711.90	703.65	603	690
10mm Coarse Aggregate (Kg/m ³)	443.324	443.63	484	385
20mm Coarse Aggregate (Kg/m ³)	669.956	665.80	727	716
Density (Kg/m ³)	2520	2525	2510	2515
Admixture CEMWET SP-3000 (NR)	0.9%	1.0%	1.1%	1.3%
Water L/m ³	169.82	170	166.5	163
Water/Cement + Fly Ash Ratio	0.43	0.41	0.37	0.37
Slump in : mm : -0 min. 30 min. 60 min. 90 min. 120 min.	Collapse 190mm 170mm 140mm 110mm	Collapse 180mm 155mm 130mm 115mm	Collapse 170mm 150mm 130mm 100mm	Collapse 190mm 150mm 125mm 95mm
Compressive Strength (Kg/cm ²) at 24°C	—	—	—	—
3 days :	179.01	330.84	291.65	438.24
7 days :	232.94	403.34	402.10	503.10
28 days :	357.12	468.63	530.65	593.65
Target mean strength (Kg/cm ²) (As per IS 456-2000)	316	433	483	533

N.B. : This information is given in good faith, is based on results gained from experiences and tests. However, all recommendation or suggestion are made without guarantee since the conditions of use are beyond our control.

MANUFACTURED BY

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88, New Okhla Industrial Complex, Phase-II, New Delhi-110020 (India)