

KFDN-SP3000

High Range Water-Reducer and HPC Pumping Aid

I. Introduction

KFDN-SP3000 is a polycarboxylic-based high range water reducer as well as a high performance concrete pumping aid. Complied standards include BS5075 (Britain), ASTM C494 (US) and GB8076-1997 (China).

The specifications of KFDN-SP3000 are as follows:

- Appearance: Light brown liquid
- Specific gravity: 1.22 ± 0.02 at 20°C
- Dry Material Content: $33\% \pm 2\%$
- PH value: 4.5 - 7
- Chloride content: Less than 0.2%
- Ash content: $9\% \pm 1\%$

II. Typical Applications

KFDN-SP3000 is typically used in works including:

- High Rise Building
- Road and Bridge
- Harbor, Power and Electricity Facilities
- Water Management Facilities
- Foundation & Substructure

III. Features and Performance

1. High workability & flowability
2. Low Bleeding
3. Stable High Slump Value:
 - Slump value reaches 150 mm or above under standard water cementitious ratio.

Mix	Cementitious (kg)	Dosage (ml/100kg of cementitious)	Slump (mm)
Plain Mix I	350.0	0.0	160.0
SP3000 Mix I	350.0	1800.0	170.0
Plain Mix II	480.0	0.0	220.0
SP3000 Mix II	480.0	2050.0	220.0

4. Enhanced strength and more durable:
 - Increase 1-day/3-days/7 days strength up to 40-150%. 28-days strength up to 25% or above.

Items	Plain Mix I	SP3000 Mix I	Plain Mix II	SP3000 Mix II	Change
Cementitious	350.0	350.0	480.0	480.0	-
W/C ratio	0.714	0.428	0.542	0.313	Water Reducing ability 40 to 43%
Dosage (ml/100kg)	0.0	1800.0	0.0	2050.0	-
Slump(mm)	160.0	170.0	220.0	220.0	-
Strength (in MPa)					
1 day	-	-	8.0	20.0	+150.0%
3 days	16.5	31.0	21.2	42.8	+87.9% to 102%
7 days	21.0	38.0	31.0	50.0	+73% to 83%
28 days	31.0	45.0	40.5	69.0	+45% to 70.4%

5. High plasticization effect.
 - Slump value increases 100mm or above under same water cementitious ratio.
6. Dosage:
 - Applicable dosage ranges from 1000ml to 5000ml and normal dosage is from 1,500ml to 3000ml (per 100 kg cementitious). Overdose increases the setting time with no serious effect on concrete's strength.
7. High water reducing capacity:
 - Water reducing ratio is in between 20-45% under applicable dosage range.
8. Early Strength with no serious elongation effect in setting time.
9. Compatibility:
 - KFDN-SP3000 admixture is compatible with Portland cement, microsilica, PFA and slag, please seek the technical advice from KFDN's local representatives.

IV. Method of Use

Methods of use are listed as follows:

- Add the aqueous KFDN-SP3000 to mixing water.
- Post-mixing addition. Mix the cementitious, aggregates and mixing water together first. Then add the aqueous KFDN-SP3000 to the mixture.
- On-site addition. Add aqueous KFDN-SP3000 into the ready-mixed concrete mixture on site. Apply further mixing to standards.
- Please undertake complimentary tests and procedures according to client's specification of works.

V. Package information

KFDN-SP3000 is provided in aqueous form of 205 to 1000 litres per container with 6 months validity or packaging size according to client's specific requirement. Store in plastic container and avoid direct sunlight.

VI. Inquiries & Technical Support

Our support team consists of highly trained technical professionals. Please contact your local representatives for further arrangements

KFDN References

Hong Kong

1. Hong Kong – Shenzhen Western Corridor
2. Hong Kong New International Airport
3. Hong Kong Housing Authority Projects
4. Airport Express Station
5. KCRC East Tsimshatsui interchange and Taiwai Depot etc.



Hong Kong – Shenzhen Western Corridor

Guangzhou

1. Guangdong Olympic Stadium
2. Guangzhou Subway Stage II
3. Panyu Bridge
4. Dongpu Bridge etc.



Guangdong Olympic stadium

Shanghai



BankComm Tower

1. BankComm Tower
2. Shanghai Technology City
3. Eastern Airline Tower
4. General Motor Plant
5. Light-rail Mingzhu Line
6. Huqingping Highway etc.



Shenzhen CMB Tower

Shenzhen

1. Saige Plaza
2. Shenzhen Subway
3. ICC Tower
4. Panglin Plaza
5. World Trade Plaza
6. Qilin Freeway Interchange
7. Jinguang Center etc.

Macau and Taiwan

1. Macau Hotel Lisboa New Wing
2. Macau Great Wall Building
3. Macau Nanfong Building
4. Taiwan Central Expressway No.2 etc.



Macau Hotel Lisboa new wing

Other

1. Jingzhou Yangtze River Bridge
2. Beijing-Zhuhai Expressway
3. Zhejiang University Campus Town
4. Huandao Expressway
5. Hainan International Commercial Building etc.



Jingzhou Yangtze river bridge

KFDN has wide spread references in Southeast Asia, more references could be provided upon request.

:: Statements of responsibility ::

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