

KFDN-SP2000

High Range Water-Reducer and HPC Pumping Aid

I. Introduction

KFDN-SP2000 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 GB 8076-1997 (China).

The specifications of KFDN-SP2000 are as follows:

- Appearance: Light brown liquid
- Specific gravity: 1.08 ± 0.02 at 20°C
- Dry Material Content: $21\% \pm 2\%$
- PH value: 6-8
- Chloride content: Less than 0.2%
- Ash content: $3 \pm 1\%$

KFDN-SP2000 innovates the water reducing technology of dimensional dispersion among the concrete particles and the SP2000 admixture. "It creates a zigzag water adhering dimensional surface to maximize the water reducing capacity.

II. Typical Applications

KFDN-SP2000 is typically used in works including:

- High Rise Building
- Water Management Facilities
- Road and Bridge
- Power and Electricity Facilities
- Harbour
- Underground Structure

III. Features and Performance

1. Water reducing capacity
 - Higher water reducing capacity
 - Water reducing ratio reaches from normally 20% to the capacity of 45%.
2. Excellent set retarding capacity
 - Under normal situation, the set retarding duration various from 2 to 8 hours. For specific duration requirement, our consultant would arrange special tailor-made services to the clients.
3. Higher plasticization effect
 - Slump value reaches 15cm or above under standard water concrete ratio.
4. Contains stable slump value.

Mix	Cementitious (kg)	Dosage (ml/100kg of cementitious)	Slump (mm)
Plain Mix I	360.0	0.0	180.0
SP-2000 Mix I	360.0	1000.0	180.0
Plain Mix II	480.0	0.0	190.0
SP-2000 Mix II	480.0	1500.0	195.0

5. Higher workability.

6. Higher strength and more durable.

Items	Plain Mix I	KFDN-SP2000	Plain Mix II	KFDN-SP2000	Change
Cementitious	360.0	360.0	480.0	480.0	-
W/C ratio	0.694	0.417	0.521	0.302	Water Reducing Capacity 40 to 42%
Dosage (ml/100kg)	0.0	1000.0	0.0	1500.0	-
Slump(mm)	180.0	180.0	190.0	195.0	-
Strength (in MPa)					
3 days	16.2	30.8	21.6	46.9	+90% to 117%
7 days	22.0	38.2	28.0	51.2	+73% to 83%
28 days	28.2	43.8	42.0	70.6	+55% to 68%

7. Dosage

- Applicable dosage ranges from 600ml to 1800ml and normal dosage is from 1000ml to 1500 ml (per 100 kg cementitious). Overdose increases the setting time with no serious effect on concrete's strength.

8. Compatibility:

- KFDN-SP2000 admixture is compatible with Portland cement, microsilica, PFA and slag, please seek the technical advice from KFDN's local representatives.

9. Higher flowability.

10. Low bleeding

IV. Method of Use

- Aqueous addition to mixing water.
- Post-mixing addition. Mix the cementitious, aggregates and mixing water together first, then add the aqueous KFDN-SP2000 to concrete mixture.
- On-site addition. Add aqueous KFDN-SP2000 into the ready-mixed concrete mixture on site. Apply further mixing to standards.

V. Package information

KFDN-SP2000 is provided in aqueous form of 220 KG per container. Validity is 6 months. 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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