

HYDROPLAST - 400

High Performance (PCE) Slump Extending and Water Reducing Super-plasticizer

Product Description:

HYDROPLAST-400 is a fourth generation high performing polycarboxylate ether super-plasticizer designed to produce ready mix concrete with low water to cement ratio, impressive workability and slump retention. It is specifically designed for ready mix industry where high workability, improved water reduction with extended slump retention is of critical importance in achieving high quality and durable concrete.

HYDROPLAST-400 allows for the achievement of desired strength with reduced cement usage without losing workability. It allows for the production high consistency and quality concrete with low water - cement ratio, ensures a controlled extended workability and improves early strength development. **HYDROPLAST-400** is suitable for HOT and COLD climate, minimizes bleeding and segregation tendencies.

Working Principle:

HYDROPLAST-400 improves the cement dispersion within the concrete significantly. This property allows for the formation of a homogeneous and low viscosity cement paste which ensures an improved workability, extended workability and slump retention

Primary Uses:

HYDROPLAST-400 is typically used to produce:

-) Ready mix concrete
-) Precast concrete
-) Used in concrete where delayed setting and extended workability are desired.
-) Mass-concrete pours.
-) Self compacting concrete.
-) Long distance transportation of concrete.
-) Pumped concrete.
-) Hot weather concreting.
-) All concrete works where good workability, slump retention and increased waterproofing properties are required. Such as: swimming pools, sea Ports, tunnels, bridges, basement, etc.

Advantages

-) Better customer satisfaction is achieved because the concrete producer can consistently produce and deliver quality concrete
-) Provides good slump and workability retention without retardation
-) Reduces the need for job site adjustment of slump and workability
-) Desired Strength can be achieved by reducing cement contents to meet specified Strength without loss of workability
-) Improves the quality of concrete by increasing workability, while reducing the water Cement ratio & pumping properties
 - Improved physical & mechanical properties.
 - Improved surface finish.
 - Improved cohesion minimizes risks of segregation, bleeding and creep.
 - Denser concrete improves waterproofing properties and protection of reinforcement steel against detrimental water-borne ion attack.
 - Water-based, non-flammable, non-toxic.
 - Chloride-free; suitable for pre-stressing.
 - Specially formulated for hot weather concreting.
 - Increased compressive and flexural strength

Standards:

HYDROPLAST-400 is formulated to comply with all the requirements of:

- ASTM C- 494,
- Type AEN 943, Part 2, Tables 1 and 2

Technical Properties:

Appearance:	Light Blue or colourless
Specific Gravity:	1.175 ± 0.005 at 20° C
Chloride content:	Nil
Additional Air-entrainment:	Less than 1 %
Water-reduction:	20-30 % of mixing water
Setting Times:	No effect at the recommended dosage .
Permeability:	Reduces concrete porosity, improves waterproofing and durability.
Compressive strength:	Increased early and ultimate compressive strengths
Cohesion:	Improved cohesion reduces risk of segregation
Compatibility:	Compatible with all types of Portland cement including Sulfate Resisting Cement (SRC)

Dosage Range:

Dosage is influenced by cement type, mix design; quality of materials used, ambient temperatures and other specific requirements, so site trials should be carried to determine the optimum dosage. **Hydroplast 400 is packed in 25 litres keg, 210 litres drum.**

Recommended dosage: 400ml-1000ml for 100 kg of cementitious material. See Dosage guidance table for further instruction on dosaging.

Dosage Guidance Table

Required workability time	Product	Recommended Dosage
60 min	Hydroplast-400	0.5%
120 min	Hydroplast-400	1.0 %
240 min	Hydroplast-400	1.5 %
360 min	Hydroplast-400	2.0 %

Dispensing:

HYDROPLAST-400 should be added with the last third of mixing water or immediately after complete mixing water addition. Do not add directly to the dry mix or cement. For proper administration an automatic dispenser shall be used.

Caution:

Do not use HYDROPLAST 400 with other type of admixture containing Naphthalene Sulfonate Blends. The performance of the admixture will be adversely affected.

Limited Warranty

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.

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