

HYDROPLAST 100

Complete High Performance Water Reducing Super-plasticizer

Product Description:

HYDROPLAST-100 is a high performance, liquid, water-reducing “plasticizer” admixture formulated to improve workability, reduce permeability and improve durability. Once incorporated in the mix, HYDROPLAST-100 is adsorbed on the cement particles’ surface inducing a powerful deflocculating property, effectively reducing the concrete mixing water demand and improving physical and mechanical properties of the resultant concrete. HYDROPLAST-100 is based on a blend of SNF and organic modifiers designed with the main purpose of reducing workability loss.

Primary Uses:

HYDROPLAST-100 is typically used to produce:

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

HYDROPLAST-100 has been incorporated in concrete used for

- All types of high rise construction
- Purification structures
- Pre-stressed beams
- Foundation piles
- Diaphragm wall
- Towers and chimneys
- Tunnel linings
- Irrigation canals

Airfield runways and roads

Advantages:

- Reduced mixing water while maintaining same workability.
- Improved workability & 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.
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Standards:

HYDROPLAST-100 is formulated to comply with all the requirements of:

- ASTM C- 494, Type A
- EN 943, Part 2, Tables 1 and 2
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Technical Properties:

Appearance:	Dark brown liquid
Specific Gravity:	1.175 ± 0.005 at 20° C Chloride content: Nill
Additional air-entrainment:	Less than 1 %
Water-reduction:	10–20 % of mixing water
Setting Times:	No effect at the recommended dosages.
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).Compatible with other HYDROSIL admixtures when dispensed separately

Dosage Range:

Dosage is influenced by cement type, mix design, quality of used materials, ambient temperatures and other specific requirements, so site trials should be carried to determine the optimum dosage.

Dosage: typically 1% to 3% by the weight of total cementitious content (cement + replacers if used)

Dispensing:

HYDROPLAST-100 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.

Overdosing:

An overdose of HYDROPLAST-100 may result depending on dosage in an increase of workability and extension of setting time. Overdosed concrete must be protected against direct sun light and water evaporation



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