

# HYDROPLAST - 300

## New Glenium (PCE) High Performance Water Reducing Superplasticizer

### Product Description:

HYDROPLAST-300 is a Glenium new generation high performing polycarboxylate ether super plasticizer with impressive water reducing and slump retention properties. HYDROPLAST-300 allows for the production high consistency mixed batches with low water –cement ratio, ensures a controlled extended workability and improves early strength development. HYDROPLAST-300 is suitable for HOT and Cold Weather climate, minimizes bleeding and segregation tendencies.

### Working Principle:

HYDROPLAST-300 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-300 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-300 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.

### Standards:

HYDROPLAST-300 is formulated to comply with all the requirements of:

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

### Technical Properties:

Appearance:	Dark brown liquid
1.175 ± 0.005 at 20° C Chloride content:	Nil
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 0.5% to 1.5% by the weight of total cementitious content (cement + replacers if used)

**Dispensing:**

HYDROPLAST-300 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-300 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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