# TECHNICAL DATA SHEET

#### **UNDER WATER CONCRETE ADMIXTURE**

#### **Description**

UW PLAST is a unique bi polymer anti-wash out admixture for the underwater placement of concrete and grout. UW PLAST produces gel in the water paste which surrounds cement particles and protects them from washout.

#### **Uses**

- Underwater concrete applications.
- Foundations and piles where high water tale occurs.
- To produce cohesive concrete mixes
- Fluid grouping that may have subject to washout.

# **Advantages**

- Excellent washout resistance, protecting concrete integrity and eliminating the need to Dewater the placement site.
- Improved concrete quality by decreasing water cement ratio up to 25%.
- Improved workability and placing ability.
- Enhanced pump ability and tremie flow.
- Extended "slump life" without extended delays in set time.
- Improved cohesiveness and resistance to segregation
- Self-consolidation reduces voids and improves Structural integrity.
- Improved bond strengths and compressive strengths of concrete.
- Reduced surface laitance...

### Compatibility

UW PLAST can be used with all types of Portland cement and cement replacement materials. UW PLAST is compatible with FCSC concrete admixtures used in the same concrete mix. In case of other types of admixtures have to be used, contact FCSC technical department for more advice.

#### **Technical Data**

• Form : Liquid

• Colour : Clear to Yellowish

Density at 27 °C : 0.99±0.02

• Cl<sup>-</sup> ion : Nil to BS 5075

## Dosage

UW PLAST is recommended for use at a dosage of 0.8% to 1.5% by weight of cementitious. The dosage rate of UW PLAST is dependent on a number of variables including cement content, water cement ratio and degree for washout resistance required. Concrete temperature, ambient temperatures or designed concrete mix containing special admixtures may require dosage rates outside the specified limits. We recommend that testing be done to determine the suitability of dosage under such cases.

#### **Packaging**

UW PLAST is available in 230 kgs drums.

# **Application Methodology**

### Mix Design:

Mix proportions should be designed as for a cohesive pumpmix. Slump of at least 180mm is typical. Sand content of 40-50% of the total aggregate weight is recommended. A normal minimum cement content for underwater placing is 400kg/Cu.m. Site /plant trials should be carried out to determine the optimum mix design and work ability requirements.

### Dispending:

When concrete is made using a forced action (Power paddle) mixer UW PLAST should be added towards the end of the mixing cycle. It should be added slowly and with care, mixing should continue for a further 1 -2 minutes. When concrete is truck mixed UW PLAST should be added to the concrete after mixing either at the plant if near the site, or at site. UW PLAST should be added slowly into the truck, and mixed for 5 - 10 minutes at high speed.



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#### **Fire**

UW PLAST is non-flammable.

### Storage & shelf life

UW PLAST has a minimum shelf life of 12 months when stored under room temperatures. It should be protected from extreme temperatures and Preferably stored in shade.

### Safety precautions

User must read Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

#### Note

All Technical Data Sheets of FIRST CHOICE SPECIALITY CHEMICALS are updated on regular basis; it is the user's responsibility, to obtain the most recent issue. Field services where provided, does not constitute supervisory responsibility, for additional information contact our local representative.

# Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

Page 2 of 2

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