

# **DUPLAST RTPL**

# RETARDING ADMIXTURE BASED ON SULPHONATED NAPTHALENE FORMALDEHYDE

# **High Performance, Sulphonated Napthalene Formaldehyde Retarding Plasticizer**

Dubond's Duplast RTPL is a powerful plasticiser retarder which disperses and deflocculates cement particles whilst delaying the hydration process, thereby retarding the initial and final set. It can be used to improve work ability without the addition of extra water, or to allow reductions in the free water content. Due to improved dispersion of the cement particles the process of hydration proceeds under the optimum.

### **Areas of application:**

- Slip formed concrete
- High strength mixes
- To control set of concrete particularly in high temperature conditions
- Bridge building
- Prestressed concrete work
- Mass concrete.

#### Features & Benefits

- High strength, high cement content, low W/C ratio mixes.
- Hot weather concrete where control of initial and final set is important.
- White cement concrete.
- Increases compressive, tensile and flexural strength of concrete.
- Increases density of concrete reducing permeability and thus increasing durability.
- Allows a reduction in free water in the region of 8-12%.
- Highly effective in high cement content low water cement ratio mixes where its use enables concrete to be made more workable without loss in strength, density and durability.
- Enables controlled extension of initial set.
- The retarding action allows continuous concrete pours to be made, thus reducing the number of construction joints needed.
- The strength gain of concrete containing Duplast RTPL is enhanced after retardation of initial and final set.
- A more rapid hardening of the concrete occurs, and the effect on stripping time is negligible.

#### **Compatibility**

**Duplast RTPL** can be used with all types of Portland cement including sulphate resisting (Type V). For use with other special cements, contact Dubond's Technical Dept. Duplast RTPL should not be premixed with other admixtures. If other admixtures are to be used in concrete containing Duplast RTPL, they must be dispensed separately. If in doubt, consult Dubond's Technical Dept.





#### Directions for use

Duplast RTPL should be added to the concrete mix during the mixing cycle, at the same time as the water, or the aggregates.

Never add Duplast RTPL to the dry cement. No extension to normal mixing time is necessary.

#### Dosage

Field trials should be conducted to determine the optimum addition rates of Duplast RTPL. As a guide to these trials, a dosage range of 160ml to 280ml per 100kg cement is recommended as a starting point. Dosages outside this range can be used where improved work ability, increased water reduction and/or further set retardation are required.

#### ■ Technical Information:

Color: Dark Brown,

Chloride Content: Nil as per IS:456 BS-5075 Part I,

Sp. Gravity: 1.17 +

#### Effects of over dosage

A severe over dosage of Duplast RTPL will result in :

- Increased retardation of initial and final set.
- Increase in work ability.

Providing concrete is properly cured the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. Care should be taken to allow for the affect on formwork pressures and on stripping times.

#### Dispenser

Duplast RTPL should be dispensed through a proprietary dispenser.

#### Storage

Up to 2 years in unopened original packing. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult **Dubond's Technical Services Department.** 

## Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product is fully cured or dried).

- Do not reuse containers for storage of consumable item.
- Duplast RTPL is not a fire or health hazard.
- If accidentally ingested, seek immediate medical attention.
- Treat splashes to eyes and skin immediately.
- · Keep away from children and animals.
- Reseal containers after use.

For further information refer to the material safety data sheet. MSDS available on demand or on Dubond Products (India) Pvt Ltd web site.



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