

## UNIPLAST 15

### High Range Water Reducing Admixture

#### Description

UNIPLAST 15 is a chloride free, plasticising admixture based on lignosulfonate. It is supplied as a brown solution which is instantly dispersible in water.

UNIPLAST 15 produces more cohesive workable concrete at constant water: cement ratio with slightly improved strength or can give higher strengths at the same workability at the same water: cement ratio.

#### Use

UNIPLAST 15 can provide pumpable concrete.

UNIPLAST 15 provides excellent workability even at low water/cement ratio.

UNIPLAST 15 produce high strength, high grade concrete by substantial reduction in water resulting in low permeability and high early strength.

#### Advantages

**Increased workability:** Reduces placing time, labour and equipment.

**High strength concrete:** Water reduction gives higher strengths without cement increase or workability loss.

**Workability Retention:** Excellent workability retention.

**Reduced permeability:** Reduction of water reduces porosity giving improved water impermeability.

**Surface finish:** Better dispersion of cement particles and increased cohesion minimises segregation and bleeding and gives improved surface finish.

**Improved pumpability:** Line friction is reduced by increasing workability and cohesion.

**Chloride free:** Safe in reinforced concrete.

#### Typical Properties

**Calcium chloride content:** None as per EN 934-1:2008

**Specific gravity:** 1.18 to 1.22 at 20° C.

**Cement compatibility:** Compatible with sulfate resisting and other Portland cements and high alumina cements.

**Durability:** Water reduction gives increase in density and water impermeability which improves durability.

**Compressive strength:** Reduction in water/cement ratio will result in up to 40% increase in early age compressive strength.

#### Standards

UNIPLAST 15 complies with **BS 5075 and ASTM C-494 Type A & F/ ASTM C-494 M.**

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#### Direction for use

**Dosage:** The optimum dosage for UNIPLAST 15 should be determined by site trials with the particular concrete mix under prevailing ambient condition.

**As a guide the dosage is normally:** 0.80 - 1.80 litres/100 kg cement for flowing concrete. 1.3 -2.50 litres/100 kg cement for high strength concrete.

Dosage can be from 0.6 litres to 3.0 litres/100 kg, cementitious material, depending on the requirements of the concrete involved.

**Overdosing:** An over dose of double the maximum recommended dose of UNIPLAST 15 will result in very high workability, possible severe retardation and segregation. Otherwise the ultimate compressive strength of the concrete will not be impaired, if properly cured. The overdosing effect will be exaggerated when used with sulphate resisting cement.

**Curing:** As with all structural concrete normal curing methods apply.

**Cleaning:** Spillages of UNIPLAST 15 can be removed with water.

#### Packaging

UNIPLAST 15 is supplied in 210 litres drums and in bulk.

#### Storage and Shelf life

**Storage:** UNIPLAST 15 should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. UNIPLAST 15 has a minimum shelf life of 12 month provided temperature is kept within the range 5°C to 30°C.

#### Technical Service

We provide technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical department in these cases.

#### Safety precautions

UNIPLAST 15 is nontoxic. Any splashes to the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

**Fire:** UNIPLAST 15 is non-flammable.