

UNIPLAST 20

Concrete Superplasticizer, High Range Water Reducing & Set Retarding

Description

UNIPLAST 20 is based on a blend of polymers. It is a brown liquid instantly dispersible in water.

UNIPLAST 20 will give flowable concrete or high strength concrete with extended workability.

Use

UNIPLAST 20 can produce pumpable concrete.

UNIPLAST 20 can provide good water reduction to achieve permeability and high early strength.

UNIPLAST 20 gives extended workability which is useful when concrete is transported in ready mix trucks and for avoiding cold joints in concrete.

Advantages

Increased workability: Reduces placing time, labour and equipment.

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

Extended workability: Some set retardation gives longer working times which are useful for truck transport and for avoiding cold joints between concrete pours.

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

Surface finish: Better dispersion of cement particles and increased cohesion minimizes 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

Appearance: Dark Brown Liquid

Calcium chloride content: Nil as per EN 934-1:2008

Specific gravity: 1.20 at 20°C

Air Entrainment: 0.5%

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.

Standards

UNIPLAST 20 complies with **BS EN 934-2:2012, BS 5075, ASTM C-494 Type G & D & ASTM C1017.**

Direction for use

Dosage: The optimum dosage for UNIPLAST 20 should be determined by site trials with the particular concrete mix under prevailing ambient condition.

As a guide the dosage is normally: 0.60 – 2.0 % Volume by weight of cement.
For flowing concrete 1.6 - 2.0 litres/100 kg cement for high strength concrete.

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Overdosing: An over dose of double the maximum recommended dose of UNIPLAST 20 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 20 can be removed with water.

Packaging

UNIPLAST 20 is supplied in 210 litres drums and in bulk.

Storage and Shelf life

Storage: UNIPLAST 20 should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use.

UNIPLAST 20 has a minimum shelf life of 12 month from date of Manufacture.

Storage life in Bulk Storage: 12 months from date of delivery.

Technical Service

Unichem Chemicals & Asphalt W.L.L provides 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 20 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 20 is non-flammable.

Limitation of Liability: This information is based on our current level of knowledge. It is given in a good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein.