



UCOPLAST-SP-450

CA-112

Super Plasticiser

Product

UCOPLAST-SP-450 high range water reducing superplasticiser for concrete, mortars provide very high water reduction complies ASTM C-494 type-F BS 5075 part 3 IS 9103 1979

Composition

UCOPLAST-SP-450 is a brown liquid based on selected synthetic sulphonated naphthalene formaldehyde condensates.

Description

UCOPLAST-SP-450 is a powerful superplasticiser-dispersing agent based on modified sulphonated naphthalene formaldehyde condensate.

Benefit

1. Flowable Concrete

UCOPLAST-SP-450 greatly produce flowing concrete with higher strength in comparison of normal strength this flowable concrete allows rapid placing of concrete with little or no vibration and makes the concrete denser for increased durability

2. High Early Strength

UCOPLAST-SP-450 gives high early strength if advantage of water reduction is taken up to 25 % significant increase in ultimate strength improved surface finish, improved water tightness no adverse shrinkage effect specially suitable for congested & heavily reinforce concrete.

Technical Data

Form Liquid
Colour Brown
Cl content..... Nil
PH..... 7.5 + 1
Air entrainment..... 1% additional air
Specific Gravity..... 1.220

Advantage

- Imparts extreme fluidity.
- Allows water reduction (20-30%)
- Higher early & ultimate strength.
- Rapid placing with no vibration.
- Improved surface finish, cohesion.
- Reduced shrinkage & cracks
- Chloride free.
- Produce denser more durable concrete giving better protection to steel against corrosion.

- Chloride free safe in pestered concrete & with sulphate resisting cement marine aggregate.

Purpose

To impart very high workability without the addition of extra water or to enable large water reductions to be made for higher early & ultimate strength.

Where to Use

- Precast & pre-stressed concrete
- Floor slabs, girders
- Foundation
- Walls, columns, beams and ceilings
- Pump concrete, mass concrete
- Congested Reinforcement concrete
- Low water/ cement concrete
- Ready mixed concrete

Method of Use

UCOPLAST-SP-450 is added to part of the mixing (Ganging) water. The dosage rate is 300 ml – 600 ml / 50 KG cement bags. Optimum dosage should be determined by site trials.

Dosage

300 ml to 600 ml/50 KG cement.

Optimum dosage should be determined by site trials

Packing

5, 10, 50, 100, 210 Litre drums or bulk delivery.

Overdosing

Overdosing should be avoided since it may produce a concrete which may to segregate would retard setting of concrete.

Health & Safety

UCOPLAST-SP-450 is an industrial chemical, ingestion should be avoided.

Test Results

M-30 Grade Concrete

Typical strength workability result

Test Age	Water/Cement Ratio	Compressive N/mm ²		
		1 Day	7 Day	28 Day
Control	0.56	11.0	30.0	42.5
UCOPLAST-SP-450 (400 ml)	0.46	16.5	42.0	56.0

Test Age	Water/Cement Ratio	Slump in mm
Plain	0.56	50.0
UCOPLAST-SP-450 (600 ml)	0.56	150.0
UCOPLAST-SP-450 (600 ml)	0.45	60.0

Storage

- UCOPLAST-SP-450 has a shelf life of 12 months from the date of manufacturing, if stored as per manufacturer's instructions & in manufacturer's original unopened packing.
- Keep away from direct sunlight and store in dry & shade.
- Protect from freezing and moisture.

Handling Precaution

- UCOPLAST-SP-450 is an industrial chemical; required handling precautions should be followed.
- UCOPLAST-SP-450 is non-flammable and doesn't contain any flammable ingredient.
- UCOPLAST-SP-450 is non-hazardous, however inhalation of its dust particles should be avoided. Use of facemask is recommended.
- Prolonged contact with skin should be avoided. Use rubber gloves and boots, when working overhead, goggles should be worn.
- Contact with eye should be avoided. If in contact with eye, wash with water and take medical advice immediately.

Important Note:

All products should be used in accordance with manufacturer's instructions. Every effort is made to ensure that the information is reliable, however we do not accept any responsibility for any work carried out with our material(s) as we have no control over the method(s) used for application, site conditions, weather conditions, etc.

**INNOVATIVE
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