

High-range water-reducing superplasticising admixture

DESCRIPTION

DUCONMIX ESP 100 is a single-component, high-range water-reducing superplasticising concrete admixture based on advanced polycarboxylate ether (PCE) technology. It is designed to produce highly flowable concrete with low water/cement ratios, enhanced early and ultimate strength, improved workability and superior durability for precast and structural concrete applications.

RECOMMENDED USE

- Precast concrete
- High-strength concrete
- Low water/cement ratio concrete
- Congested reinforcement and complex formwork
- Pumped concrete
- Ready-mix concrete
- Structural and reinforced concrete

FEATURES AND BENIFITS

- Single-component liquid admixture
- High-range water reduction
- Improves workability and flowability
- Enhances early and ultimate strength
- Reduces permeability
- Reduces shrinkage and creep
- Improves durability
- Chloride-free formulation

PRODUCT INFORMATION

Standard Compliance	EN 934-2, ASTM C494 Types A & F, BS 5075 Part 1 & 3
Chemical Base	Polycarboxylate ether (PCE)
Recommended Dosage	0.3–1.5% by weight of cement
Water Reduction	Up to 30%
Slump Retention	Good
Chloride Content	Chloride-free
Compatibility	All cement types
Packaging	5, 10, 20 & 250 kg
Shelf Life	12 months

APPLICATION PROCEDURE

General

DUCONMIX ESP 100 shall be used by trained personnel. Optimum dosage shall be determined through trial mixes to achieve the required performance.

Preparation

Ensure all concrete materials are properly batched and comply with project requirements. DUCONMIX ESP 100 is supplied ready for use.

Mixing Procedure

Add DUCONMIX ESP 100 with the mixing water after approximately **50–70%** of the water has been added. Do not add directly to dry cement or aggregates. Mix thoroughly until a uniform concrete mix is achieved.

Ready-Mix Concrete

For ready-mix applications, add the admixture through the truck hopper and mix for approximately 3 minutes at 10 rpm before discharge.

Placing & Curing

Place, compact and cure concrete in accordance with good concreting practice to achieve optimum strength and durability.

Compatibility

Compatible with common cement types and supplementary cementitious materials. Trial mixes are recommended when used with other admixtures.

Precautions

Wear suitable PPE during handling and application. Avoid contact with eyes, skin and foodstuffs. Do not ingest the product. Reseal containers immediately after use and store under recommended conditions. Keep out of reach of children. Refer to the SDS/MSDS before use.

Statement of Responsibility (Disclaimer)

The technical information and application advice are based on present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.