

COSTARMIX 500

Slump Retaining & Water Reducing (PCE) Super Plasticizer



PRODUCT DESCRIPTION

COSTARMIX 500 is an exclusive blend of polycarboxylic ether-based polymers, meticulously formulated as a slump-retaining and water-reducing super plasticizer. Its design is tailor-made for high-performance concrete, aiming to enhance workability, durability, and reduce permeability effectively.

FEATURES

- Minimizes the need for on-site adjustment of slump and workability.
- Reduces long-term shrinkage and creep while also minimizing the risks of segregation and bleeding.
- Enhances workability, air entrainment, and pumping properties of the concrete.
- Chloride-free and suitable for pre-stressing applications.
- Significantly improves compressive and flexural strength at both early and final stages of concrete development.
- Offers protection to reinforcement steel against harmful water-borne attacks.
- Reduces or eliminates the high energy requirements of external heat for accelerated curing.
- Non-corrosive to steel bars.
- Provides excellent slump retention even in hot climates.

USES

- Costarmix 500 is employed in the production of high-performance precast and pre-stressed concrete by significantly reducing the water

content.

- It is utilized to attain high strength while improving workability and reducing the water-to-cement ratio.
- Costarmix 500 finds application in all concrete works where excellent workability is a necessity.
- It is employed in the production of concrete with highly workable properties, commonly referred to as high slump concrete.
- It is particularly beneficial for long-distance transportation of concrete and for constructing bridges and viaducts.
- Also used for hot weather concreting to counter the challenges posed by high temperatures.

DOSAGE

The ideal dosage must be determined through trials using the exact materials and conditions that the concrete will encounter in its intended application, ensuring it meets specific requirements.

For costarmix 500, the typical dosage falls within the range of 0.8% to 1.5% of the cementitious content.

EFFECT OF OVERDOSAGE

Exceeding the recommended dosage of the admixture may lead to increased workability, a slight rise in air entrainment, and delayed setting time.

Despite this, the ultimate strength of the concrete will not be negatively impacted and will typically be higher than that of normal concrete if properly placed and appropriately cured.

DISPENSING

The measured quantity of Costarmix 500 should be added along with the gauging water. For best results, add Costarmix 500 in the last phase after pre-wetting the mix with 80% of the total water required.

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TECHNICAL PROPERTIES

Packaging	20L, 210L, 1000L
Appearance	Brown Low Viscous Liquid
Shelf life	12 months minimum from production date
Density	1.05g/cm ³ + 0.01
PH	7-9
Water Reduction	> 30 - 40% compared with Reference mix
Corrosion behavior	Component were selected according to EN934 -1: Annex A.1
Retention of consistence	At 45 mins > Reference mix at initial
Recommended dosage	Recommended dosage: 0.8 – 1.5% by weight of cement. It is advisable to carry out trial mixes to establish the exact dosage rate Required.
Chloride content	Nil as per BS 5075
Fire Resistance	Non- flammable under normal temperature and pressure.
Air entrainment	Less than 2% as per ISO 9103

SAFETY PRECAUTIONS

- Keep away from contact with eyes and skin.
- In case of skin contact, thoroughly wash the affected area.
- While working, always wear protective gloves and eye protection.
- If the product comes into contact with your eyes, open your eyes wide, rinse with warm water, and seek immediate medical attention.

SPILLAGES

- Spillages of product should be absorbed onto sand, earth or vermiculite and transferred to suitable containers.
- Remnants should be hosed down with large quantities of water.

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SHELF LIFE

Shelf life is 12 months provided the temperature is kept within the range of 5°C to 50°C.

STANDARD COMPLIANCE

Conforms to the requirement of ASTM C494, TYPE D & G, En943, Part 2, Tables 1&2.

HEALTH & SAFETY

- Please ensure that hand gloves and goggles are worn during installation
- Apply in ventilated areas, away from flames
- It is only important that during application and after application, standard safety procedures are done.
- Please consult current MSDS for product.
- *For Professional Use only.*

ADDITIONAL INFORMATION

Costarchem manufactures a complete range of construction chemical products which include:

- Concrete admixtures
- Waterproofing system
- Flooring system
- Cementitious and epoxy precision grouts
- Damp-proofing products
- Sealants and adhesives
- Repair and refurbishment systems

For more information on any of our products, please contact Costarchem global or regional office.

LEGAL NOTE

The information and recommendations relating to the application of Costarchem products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with the stated recommendations in the product datasheets. Whilst Costarchem endeavors to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it. The user of the product must test the product's suitability for the intended application and purpose. Costarchem reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.