

# COSTARMIX 400

PCE Based High Range Water Reducing Admixture



## PRODUCT DESCRIPTION

COSTARMIX 400 stands out as an extraordinary blend of polycarboxylic ether-derived polymers, serving as a water-reducing super plasticizer (PCE-based). Its exclusive formulation is tailor-made for high-performance concrete, offering enhanced workability, increased durability, and reduced permeability. This cutting-edge plasticizer unlocks the potential for improved initial and final strength in the concrete.

## FEATURES

- Decreased need for on-site adjustments to slump and workability.
- Reduced long-term shrinkage and creep, minimizing the risk of segregation and bleeding.
- Improved workability, air entrainment, and pumping properties.
- It is chloride-free and suitable for pre-stressing applications.
- Enhanced compressive and flexural strength of concrete at both early and final stages.
- Provides protection to reinforcement steel against harmful water-borne attacks.
- Enables meeting specified strength grades with reduced cement content and increased workability.
- Non-corrosive to steel bars.

## USES

- Costarmix 400 is used in the production of high performance precast and pre-stressed concrete by reducing significant amount of water
- Used to achieve high strength with improved workability and reduced w/c ratio.

- Costarmix 400 is used to produce various ranges of concrete such as ready-mix, pumped concrete etc.
- Costarmix 400 is used in all concrete works where good workability is required.
- Used in production of concrete with extremely workable characteristics referred to as high slump.

## 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 400, 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 400 should be added along with the gauging water. For best results, add Costarmix 400 in the last phase after pre-wetting the mix with 80% of the total water required.

## 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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## TECHNICAL PROPERTIES

<b>Packaging</b>	20L, 210L, 1000L
<b>Appearance</b>	Brown Low Viscous Liquid
<b>Shelf life</b>	12 months minimum from production date
<b>Density</b>	1.04g/cm <sup>3</sup> + 0.01
<b>PH</b>	7.0 ± 1
<b>Water reduction</b>	> 30 - 40% compared with Reference mix
<b>Corrosion behavior</b>	Component were selected according to EN934 -1: Annex A.1
<b>Retention of consistence</b>	At 45 mins > Reference mix at initial
<b>Recommended dosage</b>	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
<b>Chloride content</b>	Nil as per BS 5075
<b>Fire Resistance</b>	Non- flammable under normal temperature and pressure.
<b>Air entrainment</b>	Less than 2% as per ISO 9103

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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 F 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.