

# CONCRETE ADMIXTURES

## HIGH PERFORMANCE & SPECIALTY



**WATER REDUCERS**  
**RETARDERS**  
**AIR ENTRAINERS**  
**ACCELERATORS**  
**SPECIALTY PRODUCTS**

## SNF ADMIXTURES

# COSTAMIX 100

Complete High-Performance Water Reducing Super-plasticizer



## Product Description

COSTAMIX 100 is a SNF based, high ranged water reducer specially formulated to improve workability, durability and also reduce permeability.

## Packaging

Costamix 100 is packed in 25 liters kegs, 210 liters drum.

## Dosage

Dosage is typically 1.5ltrs for 50kg of cement

## Handling Precautions

- Avoid Contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- Wear Protective gloves and eye protection during work
- If In eyes, hold eyes open, flood with warm water and seek medical attention immediately

## Standards

COSTAMIX100 is formulated to comply with all the requirements of

- ASTM C-494, Type A
- EN943, Part 2, Tables 1&2.

## Primary Uses

- Costamix100 is used to produce various ranges of concrete such as pre-cast, ready-mix, pumped concrete etc.
- All concrete works where good workability and increased waterproofing properties are required such as sea walls, swimming pools, tunnels bridges etc.
- Used to produce workable concrete with lower total water content and wherever high quality concrete is required.
- Costamix 100 is also used for hot weather concreting.
- Costamix 100 is used where delayed setting and extended workability is required.

## Advantages

- Reduced dimensions of long term shrinkage and creep. Also minimizes risk of segregation and bleeding
- Improved workability and pumping properties
- Chloride-free and suitable for pre-stressing
- Increased compressive and flexural strength of the concrete.
- Protection of reinforcement steel against detrimental water-borne attack.
- Reduces concrete porosity.
- Compatible with all types of Portland cement including sulfate resisting cement (SRC).

## Technical Properties

Chloride Content	Specific Gravity	Air Entrainment (%)	Compressive Strength(MPa)	Water Reduction (%)	Compatibility	Color
Nil	1.175 ± 0.005 at 20°C	Less than 1	Increased early and Ultimate Compressive Strength	10 – 20	Compatible with all types of Portland cement	Dark brown

## SNF ADMIXTURES

# COSTAMIX 200

Complete High-Performance Water  
Reducing Super-plasticizer



## Product Description

COSTAMIX 200 is a SNF based, high ranged water reducer specially formulated to improve workability, durability and also reduces permeability.

Whilst still improving the plastic and hardened properties of the concrete, mix designs with Costamix 200 gives cement reduction. Batching water is also reduced without loss of workability.

## Packaging

Costamix 200 is packed in 25 liters kegs, 210 liters drum.

## Dosage

Dosage is typically 1-2% depending on the slump requirement of the client.

## Handling Precautions

- Avoid Contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- Wear Protective gloves and eye protection during work
- If In eyes, hold eyes open, flood with warm water and seek medical attention immediately

## Standards

COSTAMIX 200 is formulated to comply with all the requirements of

- ASTM C-494, Type A
- EN943, Part 2, Tables 1&2.

## Primary Uses

- Costamix 200 is used to produce various ranges of concrete such as pre-cast, ready-mix, pumped concrete etc.
- Used to produce workable concrete with lower total water content and wherever high-quality concrete is required.
- Costamix 200 is also used for hot weather concreting.
- Costamix 200 is used where delayed setting and extended workability is required.

## Advantages

- Reduced dimensions of long term shrinkage and creep. Also minimizes risk of segregation and bleeding
- Improved workability and pumping properties
- Chloride-free and suitable for pre-stressing
- Increased compressive and flexural strength of the concrete.
- Protection of reinforcement steel against detrimental water-borne attack.
- Reduces concrete porosity.
- Compatible with all types of Portland cement including sulfate resisting cement (SRC).

## Technical Properties

Chloride Content	Specific Gravity	Air Entrainment (%)	Compressive Strength(MPa)	Water Reduction (%)	Compatibility	Color
Nil	1.175 ± 0.005 at 20°C	Less than 1	Increased early and Ultimate Compressive Strength	10 – 20	Compatible with all types of Portland cement	Dark brown

## SNF ADMIXTURES

# COSTA R100

PCE Special set Retardar



## Product Description

This product is suitable for improving the performance of polyether superplasticizer, including improving the adaptability of polyether superplasticizer to cement in concrete, improving the stability of water reducing agent, reducing concrete bleeding, reducing high grade concrete viscosity, improve the concrete pumping. This product can also reduce the amount of water-reducing agent.

## Instructions

The product is suitable for the formulation of high performance polyether superplasticizer to improve its high-performance concrete, high strength concrete, large flow of concrete in the application performance.

## Technical Data

Items	Specifications
Visual Appearance	Light yellow viscous liquid
Chloride ion content (by solid content), %	$\leq 0.6$
Na <sub>2</sub> O+0.658K <sub>2</sub> O (by solid content), %	$\leq 5.0$
Solid content, %	$55.0 \pm 2$
Density (g/cm <sup>3</sup> )	$1.12 \pm 0.02$ g / cm <sup>3</sup>
pH value	$8.0 \pm 0.5$
Na <sub>2</sub> SO <sub>4</sub> content (by solid content)), %	$\leq 4.0$
Formaldehyde content (by solid content), %	$\leq 0.05$

## Characteristics

- To improve the adaptability of cement.
- Reduce the slump loss; incorporation of pumping agent.
- Reduce the bleeding.
- Reduce the viscosity of concrete; the preparation of high-grade concrete, can reduce the viscosity of concrete, improve pumping.
- Reduce the amount of ether superplasticizer:

the addition of this product, the ether superplasticizer in the concrete content can be reduced.

- Green products: the production and use of the product does not produce pollution of the natural environment, in line with ISO14000 environmental protection and management of international standards.

## Safety Precautions

- This product is weak alkaline liquid, non-toxic, non- corrosive, environmentally friendly products. But not edible, when exposed to the human body and eyes, should be washed with water as soon as possible, causing allergic to some of the human body should be timely medical treatment.
- The goods should be stored in a covered container, to avoid the rain leaking and debris mixed with or evaporation of water dry.

## PCE ADMIXTURES

# COSTA R200

PCE Based Water Reducing and Retarding, Plasticizing admixture



## Product Description

This product is suitable for improving the performance of polyether superplasticizer, including improving the adaptability of polyether superplasticizer to cement in concrete, improving the stability of water reducing agent, reducing concrete bleeding, reducing high grade concrete viscosity, improve the concrete pumping. This product can also reduce the amount of water-reducing agent.

## Instructions

The product is suitable for the formulation of high performance polyether superplasticizer to improve its high-performance concrete, high strength concrete, large flow of concrete in the application performance.

## Technical Data

Items	Specifications
Visual Appearance	Light yellow viscous liquid
Chloride ion content (by solid content), %	≤0.6
Na <sub>2</sub> O+0.658K <sub>2</sub> O (by solid content), %	≤5.0
Solid content, %	55.0 ± 2
Density (g/cm <sup>3</sup> )	1.12±0.02 g / cm <sup>3</sup>
pH value	8.0 ± 0.5
Na <sub>2</sub> SO <sub>4</sub> content (by solid content)), %	≤4.0
Formaldehyde content (by solid content), %	≤0.05

## Characteristics

- To improve the adaptability of cement.
- Reduce the slump loss; incorporation of pumping agent.
- Reduce the bleeding.
- Reduce the viscosity of concrete; the preparation of high-grade concrete, can reduce the viscosity of concrete, improve pumping.
- Reduce the amount of ether superplasticizer: the addition of this product, the ether superplasticizer in the concrete content can be reduced.
- Green products: the production and use of the product does not produce pollution of the natural environment, in line with ISO14000 environmental protection and management of international standards.

## Safety Precautions

- This product is weak alkaline liquid, non-toxic, non- corrosive, environmentally friendly products. But not edible, when exposed to the human body and eyes, should be washed with water as soon as possible, causing allergic to some of the human body should be timely medical treatment.
- The goods should be stored in a covered container, to avoid the rain leaking and debris mixed with or evaporation of water dry.

## PCE ADMIXTURES

# COSTAMIX 300

High-Performance Water Reducing(PCE)  
Super-plasticizer



## Product Description

COSTAMIX300 is a polycarboxylate ether super plasticizer (PCE based) specifically designed for high performance concrete to improve workability, durability and also reduces permeability.

## Packaging

Costamix 300 is packed in 25 liters kegs, 210 liters drum.

## Dosage

Dosage is typically 1-1.2% by the weight of total cementitious content (1-1.2kg for 100 kg of cementitious material)

## Handling Precautions

- Avoid Contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- Wear Protective gloves and eye protection during work
- If In eyes, hold eyes open, flood with warm water and seek medical attention immediately

## Standards

COSTAMIX100 is formulated to comply with all the requirements of

- ASTM C-494, Type F
- ASTM C1017, GB 8076-1997 & GB50119-2003.

## Uses

- Costamix300 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.
- Long distance transportation of concrete.
- In production of bridges and viaducts
- Costamix300 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

## Specifications

Items	Criteria	Actual Result
Water Reducing Rate %	18%	20%
Moisture %	8.05	7.0
Steel Bar Corrosive	None	None
Surface Tension	68 – 72mm/min	69
pH Value	6 – 9	7.6
Fineness	15.0	10
Solid Content	92min	93

## Advantages

- Reduces the need for job site adjustment of slump and workability.
- Reduced dimensions of long term shrinkage and creep. Also minimizes risk of segregation and bleeding
- Improved workability, air entrainment and pumping properties
- Chloride-free and suitable for pre-stressing
- Increased compressive and flexural strength of the concrete both at early and final stage.
- Protection of reinforcement steel against detrimental water-borne attack.
- Reduces /eliminates the high energy requirements of external heat for accelerated curing.
- Non-corrosive to steel bars.

## PCE ADMIXTURES

# COSTAMIX 400

High Performance (PCE) Slump Extending and Water Reducing Super-plasticizer



## Product Description

COSTAMIX400 is a polycarboxylate ether based slump retaining and water reducing super plasticizer specifically engineered for high performance concrete to achieve improve workability, durability and also reduces permeability. This new generation plasticizer enables improved initial and final strength.

## Health and Safety

- Avoid Contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- Wear Protective gloves and eye protection during work
- If In eyes, hold eyes open, flood with warm water and seek medical attention immediately.

## Standards

COSTAMIX400 is formulated to comply with all the requirements of

- ASTM C-494, Type A & F
- BS EN 934-2

## Uses

- Costamix100 is used to produce various ranges
- Costamix400 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.
- Long distance transportation of concrete
- In production of bridges and viaducts
- Costamix400 is used in all concrete works where good workability and increased waterproofing properties are required such as sea walls, swimming pools, tunnels bridges etc.
- Used in production of concrete with extremely workable characteristics referred to as high slumpextended workability is required.

## Technical Properties

Items	Specifications
Chloride Content (%)	≤0.20
Solid Content (%)	50.0 ± 2.0
Steel Bar Corrosive	None
Solubility	Completely Soluble

## Advantages

- Reduces the need for job site adjustment of slump and workability.
- Reduced dimensions of long term shrinkage and creep. Also minimizes risk of segregation and bleeding
- Improved workability, air entrainment and pumping properties
- Chloride-free and suitable for pre-stressing
- Increased compressive and flexural strength of the concrete both at early and final stage.
- Improved Surface finish
- Protection of reinforcement steel against detrimental water-borne attack.
- Reduces /eliminates the high energy requirements of external heat for accelerated curing.
- Non-corrosive to steel bars.
- Provides perfect slump retention at hot climate

PCE ADMIXTURES

COSTAMIX 500

Slump Extending and Workability  
Enhancing (PCE) Super-plasticizer



Primary Uses

- Costamix100 is used to produce various ranges of concrete such as pre-cast, ready-mix, pumped concrete etc.
- All concrete works where good workability and increased waterproofing properties are required such as sea walls, swimming pools, tunnels bridges etc.
- Used to produce workable concrete with lower total water content and wherever high quality concrete is required.
- Costamix 100 is also used for hot weather concreting.
- Costamix 100 is used where delayed setting and extended workability is required.

Specifications

Items	Specifications
Chloride Content %	≤0.6
Solid content %	50.0 ± 2.0
Steel Bar Corrosive	None
Solubility	Completely Soluble
pH Value	6.9
Visual Appearance	Clear Transparent Liquid

Product Description

COSTAMIX500 is a polycarboxylate ether-based slump retaining and water reducing super plasticizer specifically engineered for high performance concrete to achieve improve workability, durability and also reduces permeability.

Dosage

Dosage is typically 1% by the weight of total cementitious content (1kg for 50 kg of cementitious material)

Health and Safety

- Avoid Contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- Wear Protective gloves and eye protection during work
- If In eyes, hold eyes open, flood with warm water and seek medical attention immediately

Standards

COSTAMIX500 is formulated to comply with all the requirements of

- ASTM C-994, Type D, F & G.

Advantages

- Reduced dimensions of long term shrinkage and creep. Also minimizes risk of segregation and bleeding
- Improved workability and pumping properties
- Chloride-free and suitable for pre-stressing
- Increased compressive and flexural strength of the concrete.
- Protection of reinforcement steel against detrimental water-borne attack.
- Reduces concrete porosity.
- Compatible with all types of Portland cement including sulfate resisting cement (SRC).

Technical Properties

Items	Criteria	Actual Result
Water Reducing Rate %	18%	30%
Moisture %	8.05	7.0
Steel Bar Corrosive	None	None
Surface Tension	68 – 72mm/min	69
pH Value	6 – 9	7.6
Fineness	15.0	10



## PCE ADMIXTURES

# COSTAMIX 600

Fourth Generation (PCE) High Performance Concrete Pumping Super-plasticizer



### Uses

- Costamix600 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.
- Long distance transportation of concrete.
- Costamix600 is used in all concrete works where good workability and increased waterproofing properties are required such as sea walls, swimming pools, tunnels, bridges etc.
- Used in production of concrete with extremely workable characteristics referred to as high slump.
- Hot weather concreting

### Technical Properties

Items	Criteria	Actual Result
Water Reducing Rate %	18%	20% - 30%
Moisture %	8.05	7.0 Steel Bar
Steel Bar Corrosive	None	None
Surface Tension	68 – 72mm/min	69
pH Value	6 – 9	7.6
Fineness	15.0	10

### Product Description

COSTAMIX600 is a 4th generation polycarboxylate ether based slump retaining and water reducing super plasticizer specifically engineered for high performance concrete to achieve improve workability, durability and also reduces permeability. This new generation plasticizer enables improved initial and final strength

### Packaging

Costamix 600 is packed in 210 liters drum.

### Dosage

Dosage is typically 0.5-1% depending on the slump requirement of the client.

### Health and Safety

- Avoid Contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- Wear Protective gloves and eye protection during work
- If In eyes, hold eyes open, flood with warm water and seek medical attention immediately

### Advantages

- Reduces the need for job site adjustment of slump and workability.
- Reduced dimensions of long term shrinkage and creep. Also minimizes risk of segregation and bleeding
- Improved workability and pumping properties
- Suitable for pre-stressing
- Increased compressive and flexural strength of the concrete both at early and final stage.
- Protection of reinforcement steel against detrimental water-borne attack.
- Reduces /eliminates the high energy requirements of external heat for accelerated curing.
- Provides perfect slump retention at hot climates.
- About 20-30% water reduction.

### Specifications

Items	Specifications
Chloride Content %	≤0.5
Solid content %	50.0 ± 2.0
Steel Bar Corrosive	None
Solubility	Completely Soluble
pH Value	6.9
Visual Appearance	Light Blue/Colorless

### Limited Warranty

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.

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