

COSTARBEX 100

Expanding Admixture for Increased Cohesion in Cementitious Grout



PRODUCT DESCRIPTION

Costarbex 100 is a formulation that combines a plasticizing agent, which enables the use of a reduced water-to-cement ratio, resulting in enhanced strength and durability, with a gas-producing expansion medium. This expansion medium counteracts natural settlement and plastic shrinkage of the grout, promoting stability and cohesion.

FEATURES

- Shrinkage compensating
- Costarbex 100 facilitates easy placement of grout by acting as an admixture for cementitious grouts, enhancing cohesion and promoting high early strength development.
- Non-corrosive/non-chloride/non-metallic.
- Good strength gain.
- Low peak exothermic system for large pours.
- Excellent effective bearing area capacity.
- Excellent flow-ability and Non-shrink grout.
- It allows for reduced water-to-cement ratio mixtures, ensuring low permeability and long-term durability in service.

ADVANTAGES

- Precision seating of baseplates, Steel Columns and Bearing Plates
- Precision grouting of wind turbine tower bases requiring excellent final strength gain.
- Grouting under equipment, including heavy impact and vibratory machinery, reciprocating engines, compressors, pumps, etc.
- Grouting for "pour-back" anchorage on post tensioning projects (e.g. segmental bridge).

USES

It is also used where a reduced water/cement ratio and positive expansion is required. However, Costarbex 100 can be used for high-strength grouting and the

installation of:

- Fasteners
- Fence and railing posts
- Starter bars
- Tie rods
- Anchors
- Crash barrier posts
- Pre-Cast Concrete structures.

Under-grouting and bedding of heavy machineries and equipment such as;

- Mechanical joints on (road, bridge, deck types, etc.)
- Crane tracks, Base plates & Bridge bearings
- Machine and seat bases for both light and heavy machinery (including heavy impact and vibratory machinery), reciprocating engines, compressors, pumps etc.

SURFACE PREPARATION

Surface must be cleaned from all loose particles, dust, grease, oil, scale and rust. The curvatures/slopes on horizontal and vertical surfaces should be leveled with a bedding/Costar Repair Mortar.

MIXING INSTRUCTION & APPLICATION

For optimal results, a mechanically powered grout mixer should be used. For quantities up to 50 kg, it is recommended to use a slow-speed drill fitted with a high-shear paddle. Larger quantities will require a high-volume drum mixer. It is crucial that both the machine mixing capacity and labor availability are sufficient to allow for a continuous grouting operation. The selected water content must be accurately measured and added to the mixer. The cement (and sand, if needed) should be slowly introduced to the Costarbex 100. Mix thoroughly for 5 minutes to ensure a smooth and even consistency.

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TECHNICAL PROPERTIES

Packaging	1-component (Total pack = 20kg)					
Component	Expansive cementitious grout Admixture					
Shelf life	12 months from date of production					
Curing	On completion of the grouting operation, any exposed areas which are not to be cut back should be thoroughly cured by means of water application or CostarCure.					
Effect of Over dosing	Overdosing of Costarbex 100 increases expansion and may cause frothing.					
Storage condition	Product must be stored in original, unopened, and undamaged sealed packaging in dry condition and temperature between +5 °C and +35 °C.					
DOSAGE	OPC	Concreting Sand	Water	CostarBex 100	Approx. Yeild	
	50kg	-	20-22 liters	225g	36liters	
	50kg	50kg	22-24 liters	225g	57liters	
Note : For grout, mortar or concrete mixes with an aggregate / cement ratio more than 1, 4 x 225 g units of Costarbex 100 per 100 kg of cement, shall be used.						

Key Note

- Measurements listed above are based on laboratory-controlled tests.
- The Compressive strengths above was obtained in a laboratory thus, variation can be expected.
- Addition of external material to the grout while mixing is not allowed.
- Mix proportions should not be altered.
- Always use a head box (Form work) when casting. Proper application is the responsibility of the installer.



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STORAGE AND SHELF LIFE

Protect from freezing, if frozen or crystallized, thaw gradually and stir to homogenous mixture. Shelf life in unopened original containers is 12 months when stored at 70°F (21°C).

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.

