

# COSTAR LIGHTCRETE

Admixture for Lightweight Concrete



## PRODUCT DESCRIPTION

Costar Light Crete is a concentrated liquid admixture for producing foamed concrete that is lightweight and is able to flow for long distances under its own hydraulic head. Costar Light Crete is used to produce a consistent pre-foam concrete that is stable under alkaline conditions. It is suitable for use in the production of foamed concrete that is light in weight, highly mobile, low density concrete and mortar. The light weight concrete produce using Costar Light Crete can be used in void filling, roof screeds and trench reinstatement.

## FEATURES

- The air content remains stable even after the concrete is placed.
- Adding pre-foam to pre-batched mortar allows precise control over the final density.
- Lightweight concrete can be easily conveyed using a concrete pump.
- Foamed concrete retains its volume and does not shrink even after hardening.
- Expensive blending equipment is unnecessary as mixing can be done in the drum of a ready mix truck.
- It is compatible with lightweight aggregates such as expanded clay.
- The resulting foamed concrete is highly mobile and can be easily placed without the need for compaction.

## AREA OF USE

Can be used in producing non-sink reinstatement concrete or as a semi-structural support in cases such

as embankments, bridge abutments, tunnels and arches.

Costar Light Crete is typically used for the production of foamed low-density concretes which can be used for: construction, void filling for elimination of fire risk.

## INSTRUCTION FOR USE

Costar Light Crete can be introduced into the concrete mixing process by adding it to the gauging water or simultaneously with the gauging water in the concrete mixer. The required mixing time to achieve a specific fresh concrete density will vary depending on the type of mixer, aggregates, and binder used. It is crucial to strictly adhere to the mixing procedure based on the results obtained from these trials.

Alternatively, Costar Light Crete can also be added to pre-mixed concrete directly into the transit mixer during the point of discharge. In such cases, an additional mixing time of at least 2 minutes per cubic meter of concrete must be strictly observed. Before discharging the concrete, it is essential to test and ensure that the intended density is achieved.

Adhering to standard rules of good concrete production and placing is necessary, and proper curing procedures must be followed for surfaces exposed to weathering. Failure to do so may lead to premature drying out near the surface, potentially causing a loss of mechanical strengths in the lightweight concrete.

As there can be various variables in concreting materials and conditions that can influence the choice and usage of an admixture like Costar Light Crete, it is advisable to conduct trials using relevant materials and conditions for optimal results.



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## TECHNICAL PROPERTIES

<b>Packaging</b>	20L, 210L, 1000L
<b>Appearance</b>	DarkBrown Liquid
<b>Shelf life</b>	12 months minimum from production Date
<b>Density</b>	1.19 + 0.02kg/litre@25°C
<b>PH</b>	7.0 ± 1
<b>Recommended dosage</b>	Recommended dosage 1.0 - 2.0 % by weight of cement. It is advisable to carry out trial mixes to establish the exact dosage required.
<b>Chloride content</b>	Nil as per BS 5075.
<b>Air entrainment</b>	Less than 2% as per ISO 9103
<b>Corrosion behavior</b>	Component were selected according to EN934-1: Annex A.1

### LIMITATIONS

- Adequate Trials should be carried out with relevant materials and conditions in order to ascertain the best mix design and admixture dosage to meet specific requirements.
- Costar Light Crete is not intended for direct addition to the mortar and any use in this manner will not produce foamed systems.
- Sands containing a significant amount of

particles greater than a (#16) sieve should be avoided.

- Concrete wash water or water from other sources containing high levels of calcium ions should be avoided. Some Superplasticizers, water reducers and dispersants may reduce the effectiveness of applied product.

**NOTE:** Concrete compressive strength is proportional to its density and also to the cement content of the original mortar.



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### SHELF LIFE

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

### STANDARD COMPLIANCE

Conforms to the requirements of ASTM C494 type S

### 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.