

CRYSTAL C 320

Crystalline Waterproofing Liquid Concrete Admixture

Description

CRYSTAL C 320 is a hydrophilic crystalline waterproofing admixture designed to enhance the durability and longevity of concrete structures. Utilizing advanced crystal technology, **CRYSTAL C 320** reacts with cement and water to initiate a catalytic process. This reaction forms a protective crystalline network within the concrete's pores, capillaries, and cracks, significantly reducing permeability.

The long-term reactivity of **CRYSTAL C 320** endows the concrete with adaptive self-healing properties, effectively countering deterioration and maintaining structural integrity over time. As a Permeability Reducing Admixture for Hydrostatic Conditions (PRAH), it offers superior performance in challenging environments, ensuring robust and reliable waterproofing solutions.

Fields of Application

- Foundations, basements.
- Tunnels and subway systems.
- Pre-cast and shotcrete.
- Water and Wastewater structures.
- Water treatment plant.
- Swimming pools.
- Elevator pits.
- Parking structures.

Features and Benefits

- Protects the concrete against negative and positive water pressure (14 bars).
- Resistant to extreme hydrostatic pressure.
- Highly resistant to corrosive chemicals.
- Provides permanently active waterproofing. During the curing time, it creates insoluble nano structural crystal into the capillary cracks.
- Non toxic. Safely used in water tanks.
- Protects against water, chloride, and sulfate ingress; increases resistance to chemical attacks
- Water vapor permeable. It allows the concrete to breath.
- Easily added to ready-mix truck or central mixer.
- Self-seals hairline cracks up to 0.5 mm.

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- It becomes an integral part of the concrete and improves the durability of the concrete.
- Provides long term protection even though concrete surface is damaged.
- Does not need to any additional waterproofing applications.
- Does not harm for human health and environment.

Technical Data

Color	Transparent Brownish
Density	1,15 kg/lt
pH	12-14
VOC	None
Hydrostatic resistance	14 bars
Cracks self-sealing	Up to 0.5mm
Application Temperature	+5°C to +35°C
Workability Time	45 minutes
HS Code	3824.40.00.00.00

Application Procedure

Application Method

Add **CRYSTAL C 320** to the concrete during batching at a dosage of 0.8–1.5 liter of total cementitious material weight using automatic dispensers. Ensure to shake **CRYSTAL C 320** well before use.

Workability time is approximately 45 minutes after the addition of **CRYSTAL C 320**.

Note : **CRYSTAL C 320** is compatible with all cement types, supplementary cementitious materials, admixtures, and fibers. A concrete trial mix is necessary to determine the actual plastic properties.

Dosage

0.8-1.5% by weight of cement. For assistance in determining the appropriate dosage rate and additional information, please consult a Baumerk representative.

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Packaging

CRYSTAL C 320 is available in 30 kg plastic drum or 1000 kg IBC

Shelf Life

12 months in original, unopened package.

Storage

Store in dry area between +5°C and +35°C. Protect from heat, freezing and direct sunlight.

Cautions / Limitations

- Water/Cement ratio shouldn't be up to 0,55.
- Use retarder when using CEM II or III Portland cement.
- It may be harmful with skin contact.
- Do not apply in freezing conditions or during precipitation.
- Protect applied materials from rain, freezing, foot traffic and continuous high humidity until completely dry.
- Do not use when air and surface temperatures are below +5°C and above +35°C.

Health and Safety

Warning! Cause eye and skin irritation. If eye or skin contact, get immediate medical attention. If swallowed, do not induce vomiting. Call a physician or poison control center. Never give anything by mouth to an unconscious person.

Wash hands thoroughly after handling. Wear protective clothing, gloves, eye and face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Dispose of unused, contents, container and other contaminated wastes in accordance with local, state, federal and provincial regulations.

Keep container closed when not in use. Keep out of the reach of children.


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Limited Warranty: This product is subject to a written limited warranty which can be obtained free of charge from BAUMERK Company. Please contact with technical service department for further information and support.

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<p>BAUMERK YAPI VE KİMYA SANAYİ VE TİCARET Ltd. Şti. Dursunköy Mahallesi Uygur Caddesi No:44 34555 Hadımköy Arnavutköy / İstanbul TÜRKİYE 17</p>	
<p>2184-CPR-0218 DOP NO: 0934-203 EN 934-2:2009+A1:2012 CRYSTAL C 320 Harç ve Betonlarda Kullanılan Kristalize Esaslı Katkı Su Geçirimsizlik Katkıları , Çizelge 9 Crystalline Based Additive Used in Mortar and Concrete Waterproofing Additives, Table 9</p>	
Capillary Water Absorption Kılcal Su Emme	<p>After 7 days of cure, for 7 days of experiment; trial concrete, maximum 50% of the witness concrete; After 90 days of cure, for 28 days of experiment; trial concrete, maximum 60% of the witness concrete 7 günlük kürden sonra , 7 günlük deney için; deneme betonu , şahit betonun en çok % 50'si; 90 günlük kürden sonra, 28 günlük deney için; deneme betonu ,şahit betonun en çok %60'ı</p>
Compressive Strength Basınç Dayanımı	<p>In 28 days, the trial concrete is at least 85% of the witness concrete. 28 günde, deneme betonu, şahit betonun en az % 85'i</p>
Amount of Air in Fresh Concrete Taze Betondaki Hava miktarı	<p>Unless otherwise specified by the manufacturer, The trial concrete is at most 2% higher than the witness concrete by volume. Üretici tarafından aksi belirtilmedikçe, deneme betonu, şahit betonun hacimce en çok % 2 üzerinde</p>
Highest Chlorine Content En Yüksek Klor Muhtevası	%0,02
Highest Alkali Content En Yüksek Alkali Muhtevası	%4,4
Dangerous materials Tehlikeli Maddeler	Does Not Contain Any Hazardous Substances Herhangi Bir Tehlikeli Madde İçermez

