

ConProtect WP1

Liquid waterproofing crystallizing concrete admixture

DESCRIPTION

ConProtect WP1 is an easy-to-use liquid concrete admixture based on crystallization technology.

ConProtect WP1 is used to ensure concrete waterproofing and to seal microcracks in moist environments.

The crystallization-based additive chemically reacts with cement, filling the pores and capillaries of the concrete with a sealing, insoluble structure.

APPLICATION

ConProtect WP1 is used for waterproofing basements, water tanks, roofs, reservoirs, dams, wastewater treatment plants, swimming pools, water treatment plants, tunnels, marine structures, etc.

- Concrete and reinforced concrete
- Underground concrete structures
- Other concrete and reinforced concrete structures
- Plaster mixes

ADVANTAGES

Using **ConProtect WP1** significantly improves the strength and durability properties of concrete.

- Seals microcracks. Seals hairline cracks up to 0.5 mm.
- Fully waterproof concrete.
- Increased durability.
- Protection against chloride and sulfate penetration.
- Withstands hydrostatic pressure.
- Enhances chemical and carbonation resistance.
- Faster construction progress.
- Permanent water tightness.
- Integral waterproofing.
- Non-toxic.
- Improves workability and strength.
- May reduce the consumption of other admixtures.
- Concrete application is not limited by weather conditions.
- The liquid does not form clumps like powders and is easy to dose automatically.
- Enhances the hydration process.

DOSAGE AND APPLICATION

ConProtect WP1 – Liquid

ConProtect WP1 is added to the concrete mix at the batching plant using an automatic dosing system at a dosage of **1% of the cement weight**. Under specific conditions, the dosage may be increased to **2% of the cement weight** to meet project-specific requirements. For other cement-based materials, such as dry mix mortars, we recommend using **0.2–0.5%** by weight of the total dry mix.

The amount of water in the concrete mix must be reduced according to the amount of the additive.

The final dosage must be adjusted based on the quality and composition of the cement. ConProtect WP1 should be added either simultaneously with the mixing water or immediately after—it must never be added together with other admixtures. We recommend testing compatibility with other concrete admixtures separately. A longer mixing time ensures the product is evenly distributed throughout the system, enhancing its effectiveness. For optimal dosing, consult the material manufacturer SL Protection OÜ.

OVERPROPORTION

Overproportion of ConProtect WP1 results in increased pumpability, faster hardening is possible. In case of accidental overproportion the strength and hardening of the concrete must be checked before removing the formworks. Usually there are no long-term adverse side effects from overproportion if the correct hardening with water has taken place before removing the formworks. Generally the strength improves in 28 days. If in doubt, contact SL Protection's Technical department.

PROPERTIES

- Standard EN 934-2
- Compressive strength up to 115%
- Increases the air content by a minimal amount 0,4%
- Significantly increases sulfate resistance up to 25%
- Reduction in cement laitance release up to 75%
- Pressurized water penetration 7mm (Test report N° 345/20)
- Maximum water penetration depth (mm) according to EN 12390-8 High water resistance (W8) ≤ 10 mm
- Self-healing effect on cracks: Test report N° EWS 12002021/44
- Very good self-healing properties
- Does not affect frost resistance



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Property	Unit	Value
Active Content	%	<60
Appearance		Transparent Liquid
Density	g/m ³	~ 1,25 (20 °C)
viscosity	mPa·s	12 (25 °C)

STORAGE

The product must be kept in the shade at a minimum temperature of 7 °C. When stored in suitable conditions and in original sealed container, the shelf life is 12 months. Stir before use and protect from freezing.

PACKAGING

ConProtect WP1 (liquid) is available in 1000 L IBCs. At the customer's request, it is possible to pack into other containers, such as 1, 3, 5, 10, 25 L jerricans or 200 L barrels.

WASTE DISPOSAL


When disposing of waste, follow local waste management regulations and take hazardous waste to an appropriate collection point.

HEALTH AND SAFETY

Before using ConProtect WP1, carefully read its Safety Data Sheet (SDS) to obtain information on safety, toxicology, and proper transportation, storage, and usage. The Safety Data Sheet is available on request via info@slprotection.eu or upon request from your local representative.

CONTACT OF THE MANUFACTURER

SL Protection OÜ
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SL Protection OÜ Vana-Narva mnt. 30, Maardu, 74114, Harju maakond, Estonia 20	
1504-CPR-0516 EN 934-2:2009+A1:2012	
Crystallizing concrete admixture that increases water resistance EN 934-2:T2 ConProtect WP1	
Chloride ion content	Up to 0.1 % by mass
Alkali content	Up to 10 % by mass
Corrosivity	Contains only components according to EN 934-1:2008 Annex A.1
Hazardous substances	NPD (No Performance Determined)



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NOTE: All reasonable measures have been taken in the manufacture of ConProtect WP1 products to ensure compliance with the high quality standard of ConProtect WP1. The recommendations and product features are believed to be based on the most reliable information available and are not recommendations for infringement of rights of other patents. Although all ConProtect WP1 products undergo rigorous quality testing, no specific guarantee can be given as the results depend not only on quality but also on the factors beyond our control. Therefore, we are happy to consult in case of doubts about the application or the indicators and point out at the same time that oral recommendations other than those listed here are not binding without the written confirmation of ConProtect WP1. All transactions take place in accordance with our terms of sale, delivery and service. This data sheet replaces the previous one, the version replacing it can be issued without prior notice, if necessary. The information provided on this sheet is true and reliable to the best of our knowledge. The provided on-site service cannot be considered as responsible supervision. Therefore, our guarantee is limited to the quality of the materials supplied.