

FROSTOP L

Concrete hardening accelerator

1. Product characteristics

FROSTOP L is a specially formulated chloride-free liquid admixture that accelerates the setting and hardening of mortars and concretes based on Portland and slag cements.

- shortens the time of necessary thermal protection when concreting at low temperatures
- shortens the period of time after which formwork can be removed from concrete structures
- reduces the water-cement ratio
- increases the overall strengths of mortars and concrete
- improves the workability of fresh concrete mixes

2. Use

FROSTOP L can be employed in combination with conventional types of plasticizers and/or air-entraining agents. It improves the workability of fresh concrete mixes and reduces the amount of mix water. It speeds up setting and hardening of mortar and concrete, cuts down the time of thermal protection when concreting at low temperatures, and increases both the primary and final strengths of concrete.

3. Physical and mechanical parameters

Appearance	Clear liquid of medium viscosity
Density (kg/m ³)	1220 ± 20
Cl ⁻ content (%)	max. 0.01

4. Test certificates

The product is certified according to § 12 of Act No. 22/1997 Coll. and according to § 6 of Government Regulation No. 163/2002 Coll. as amended.

Continuous independent production quality control is provided by AZL 1687 LABBET®.

Supervision of Quality Management Systems, Environmental Relations and OSH is carried out by Certification Body No. 3029

5. Instruction for preparation and application

FROSTOP L is introduced either to the mix water or directly to the concrete/mortar mix. **It must never be added to dry mix components!**

6. Specific consumption

Specific consumption amounts to 0.5÷2.0 liters per 100 kg of cement. In use with products of **MONOCRETE** a **WATERFIX** series the recommended consumption amounts to 0.1 l per 25 kg of mortar mix.

7. Packing and storage

FROSTOP L is supplied in PE buckets of 10 liters. Larger sizes are available upon special order. The storage life in undamaged packing is 24 months. The product is non-flammable.

8. Health protection at work

Use of **FROSTOP L** setting accelerator requires adequate safety precautions to be observed. In the event of contact with the eyes, the eyes should immediately be rinsed with clean water and medical help sought. In the event of accidental swallowing, induce vomiting and seek medical help without delay. Any contact with the skin requires thorough washing with tepid water and soap and subsequent treatment with a regenerating skin salve.

Issued MSDS meets the requirements of EC-Regulation 1907/2006, Article 31.

Because the product meets the criteria for classification as hazardous, it is necessary to provide the recipient or carriers with MSDS.

In countries where regulation REACH (para. 33.1): EU regulation on chemicals and their safe use (REACH: EC 1907/2006) is valid, professional users and distributors must be provided with following information automatically and without request:

This product is subject to Regulation (EC) No. 1907/2006 (REACH). It does not contain any substances that could be released from product under normal or reasonably foreseeable conditions of use. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.

Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from candidate list published by the European Chemicals Agency in concentrations above 0.1% (w / w).

9. Waste disposal

During disposal of contaminated packages or clearing debris from product, it is necessary to follow the Act No. 185/2001 Coll. on waste, as amended.

10. Important notice

All information mentioned above, especially advice for processing and application of our products, is based on our knowledge from the development of chemical products and on years of experience with applications in practice at standard conditions, and proper storage and use. Due to the differing conditions during processing, high count of products, varying nature and modifications of base and other external influences, the procedure based on the information provided or on other written or oral recommendations, may not always ensure satisfactory working results. BETOSAN s.r.o. assumes no liability for provided advice or recommendation. The applicator must prove, that he submitted complete information on time and in writing which is necessary for a proper detailed assessment by BETOSAN s.r.o. The applicator must test the suitability of the products for the intended application. Proprietary rights of third parties, above all, must be taken into account. All received are orders subject to our current "General sales and delivery conditions ". Please always make sure that you follow the most recent issue of the Technical Data Sheet. It is available, along with other information, at our Technical Department or at www.betosan.cz

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