

ETRISAN

Expansive admixture for cement mortars and concretes

1. Product characteristics

Dry powder admixture, which together with clinker materials contained in cement forms reaction products with significantly increased volume, that compensates shrinkage of cement mortars and concretes generated because of their drying. Increased batching of this admixture especially in case of more massive concrete elements allows to generate moderate expansion of concrete.

- reduces significantly risk of shrinkage cracking
- increased batching sets moderate expansion
- neither decreases resulting concrete strength nor decelerates its setting
- workability of concrete mix is not decreased
- enhanced water tightness and frost resistance of concrete

2. Use

ETRISAN is an expansive admixture intended for preparation of cement mortars and concretes both in central concrete mixing plants and in-situ, especially in cases when the project requires to ensure minimum voluminous changes of concrete or, possibly, minimization of its shrinkage. It is intended especially for casting when it is necessary to fill intermediate spaces in existing concrete or reinforced concrete structures and avoid cracking in contact construction joints. It can be used for different concrete pads and other special works when we want to minimize risks of cracking. Usual batching amounts to 5 % of cement weight.

3. Physical and mechanical parameters

Color	grey-white
Content of water-soluble chlorides	max. 0.01 %
Expansion of standard cement mortar under recommended batching (5 %) and standard humidity conditions	max. 0.5 ‰

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

The admixture is dry-stirred into cement mortars and concretes. The classic gravity concrete mixer can be used for mixing. It is necessary to homogenize the mixture thoroughly. The admixture can be used in conjunction with any plasticizer or setting accelerator.

6. Specific consumption

Specific consumption usually amounts to 5 % of cement weight per 1 m³ of the mix. This batching ensures moderate expansion, max. up to 0.5‰, of usual concrete construction elements, from 10 to 60cm thick, placed in common environment with relative humidity from 50 to 75%. Expansion effect of more massive elements, or elements placed in environment with higher relative humidity, is bigger. On the other side the expansion effect of slighter elements as well as elements placed in dry environment is lesser. It is recommended to carry out verification of admixture batching regarding concrete conditions before application in more demanding types of casting.

7. Packing and storage

Admixture is packed by 10 kg into soluble bags put into plastic enclosed buckets. **ETRISAN** must be efficiently protected during transportation and storage against moisture. Storage life in undamaged packing is 6 months. After the expiration of min. shelf life, which is stated on the packaging, ingredients are not fully effective at reducing chromium VI below 2 ppm.

8. Health protection at work

Handling the **ETRISAN** admixture does not require any extraordinary hygienic pre-cautions. The product contains alkalis and therefore any contamination of mainly eyes or mucous membrane must be prevented. Health and labor safety rules applicable to work with cement or lime mortars are to be adhered to.

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

Technical Data Sheet No. 3-3
Issued 30.8.2019
6 118 303 355

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