

## SUPERFIX TH



Expansible infilling thixotropic dry mortar for fixing anchoring elements, sealing penetrations and defects in concrete structures

### 1. Product characteristics

Single-component expansive dry mortar mix containing expansive admixture. Meets the requirements of EN 1504-6 for anchoring and reinforcing concrete by steel reinforcing bars.

- applied manually or mechanically
- thixotropic – doesn't flow down
- permanently water resistant
- perfect mechanical properties
- perfectly fills up holes and cavities due to controlled expansion

### 2. Use

**SUPERFIX TH** is a single-component expansive dry mortar mix on the Portland cement basis intended especially for filling up holes and cavities in concrete structures. **SUPERFIX TH** mortar ensures proper and permanent filling and monolithing of the concrete. It provides alkaline protection to anchoring elements. It is also practical for monolithing of joints in prefabricated reinforced concrete structures.

### 3. Physical and mechanical parameters

Requirements / results according to EN 1504-6

	Testing method	Requirements	Results
Pull out (mm)	EN 1881	< 0.6	< 0.3
Chloride ion content (%)	EN 1015-17	< 0.05	< 0.02

Physical and mechanical parameters

SUPERFIX TH		f	r
Color		Non-standard grey	
Bulk density (kg/m <sup>3</sup> )		1530 ± 40	
Tensile bending strength (MPa)	7 days	> 7.5	> 8.5
	28 days	> 10.0	> 10.5
Compressive strength (MPa)	7 days	> 45	> 55
	28 days	> 55	> 60
Expansion (volume change) vol. % <sup>1)</sup>		after 28 days + 0.6	

<sup>1)</sup> at 20±5 °C and relative humidity of ambient air 50 - 75 %.

### 4. Test certificates

The product is certified according to Act 22/1997 and Governmental Decree No. 312/2005 Coll. Continuous independent quality control is provided by accredited testing laboratory No. 095/2002, Horský s.r.o.

Supervision of the quality system, EMS and OHSAS is carried out by Notified Body No. 1020.

### 5. Instruction for preparation and application

Base. Any dust and incoherent particles shall be removed from the base before application. The concrete surface cannot be contaminated by substances, which can negatively affect adhesion of the mortar to the base (oil or other products). Before application of the prepared mortar, humidification of the concrete surface shall be properly and repeatedly performed for at least 120 minutes.

Preparation of mortar. **SUPERFIX TH** is prepared by mixing necessary amount of dry mortar with measured amount of water. The recommended mixing ratio is specified in the following Table. Optimum quantity of batching water can fluctuate in the given interval as it is usual with mortars containing a cementing binder.

mortar	grading (mm)	recommended mixing ratio		thickness of the grouting (mm)	
		dry component (kg)	water (liters)	min.	max.
<b>SUPERFIX TH f</b>	0 ÷ 1	25	3.25 ÷ 3.75	5	35
<b>SUPERFIX TH r</b>	0 ÷ 4	25	3.20 ÷ 3.70	20	unlimited

Workability of the product is 50 - 60 minutes under 20 °C.

Neither temperature of base nor temperature of ambient air shall be below + 5°C and above + 30°C.

Mortar application. **SUPERFIX TH** mortar has especially good workability, it is highly non-slump and it has a perfect adhesion base. To ensure a perfect filling of the cavities, it is important to mix the mortar well and remove all the air non-homogeneities.

Applied mortar treatment. Laid surfaces shall be properly treated immediately after completion. Use of the PE foil, moistened geotextile, etc. for coverage of laid areas or filled holes proved well.

## 6. Specific consumption

Specific consumption of dry mortar amounts to  $1.8 \div 1.9 \text{ kg/dm}^3$ .

## 7. Packing and storage

The product is supplied in 25 kg PE-lined paper bags. **SUPERFIX TH** must be efficiently protected against moisture during transportation and storage. Shelf 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 **SUPERFIX TH** dry mortar does not require any extraordinary hygienic precautions. 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](http://www.betosan.cz)



## 11. CE marking

<b>CE</b> 1301	
<b>BETOSAN s.r.o.</b> Na Dolinách 28, 147 00 Prague 4	
15	
8-3/072013	
EN 1504-6:2006	
<b>SUPERFIX TH</b> Mortar with cement admixture for anchoring and bonding with expansive effect	
Pull out	< 0.3 mm at load of 75 kN
Chloride Ion Content	< 0.02%
Dangerous substances	meets 5.3
Reaction to fire	Euroclass A1

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