

Self-levelling material for floor layers

1. Product characteristics

Highly liquefied floor spread coating for levelling and blinding layers. The spread coating is manufactured on the basis of cement, siliceous filling agents and special admixtures. Meets the requirements of EN 13813.

- applied by pouring
- for levelling both old and existing concrete floors
- suitable as a base under final wear layers
- suitable for interior
- good mechanical properties
- perfect adhesion to base
- at normal temperature (20 °C) the surface is ascendable after 2 hours

2. Use

NIVELITH FS is used especially for making levelling and blinding layers under final wear surface finishing. It is suitable especially for office and dwelling spaces. It is applied at once on a load-bearing concrete in thickness of 2 mm to 5 mm. It is matured for overlaying after 48 hours at 2 mm layer thickness.

3. Physical and mechanical parameters

Requirements / results according to EN 13813

Properties	Declared value or class
Reaction to fire	class A1
Abrasion resistance (Böhme)	<class A22
Adhesion to base	>class B1.5
Compressive strength	>class C12
Tensile bending strength	>class F5

Physical and mechanical parameters

Color	non-standard grey	
Tensile bending strength (MPa) ¹⁾	1 days	> 1.5
	3 days	> 2.5
	7 days	> 3.5
	28 days	> 5.0
Compressive strength (MPa) ¹⁾	1 days	> 6.0
	3 days	> 9.0
	7 days	> 12.0
	28 days	> 15.0
Humidity after 2 days ²⁾	< 4 %	

¹⁾ Mechanical strengths for the exact given amount of water

²⁾ At temperature of 20 °C and relative humidity from 50 to 70%

4. Test certificates

The product is certified according to Act No. 22/1997 Coll. and Regulation (EU) No 305/2011 of the European Parliament and of the Council (CPR). Continuous independent production quality control is provided by AZL 1687 LABBET®. Supervision of quality management, environmental and OSH systems is performed by Certification Body No. 3029.

5. Instruction for preparation and application

Base. The base must be bearing, permanently dry, free of oils, dust, old coatings, grease and waxes. Any dilatation in the substrate must be always reflected in superimposed layers. Any cracks in the substrate must be repaired before applying **NIVELITH FS**.

All dirt and dust must be removed from the substrate before application.

To ensure a proper adhesion of **NIVELITH FS** to the base, it is necessary to use a right adhesive bridge in dependence on the specific material. For cement or concrete base layers **DENSOCRETE 222** resp. **DENSOCRETE 111** proved well. For anhydrite base layers it is recommended to use **DENSOCRETE 111** adhesive bridge, resp. **BETOLIT EP 0-1** with **BETOFIL FH** backfill.

Local potholes in the concrete base can be repaired with **MONOCRETE PPE r, f** rehabilitation mortar.

In case you are not sure what to apply on old floor layers e.g. XYLOLIT, it is recommended to consult the right adhesive system with the producer.

Mix preparation. The mix is a single-component and is mixed with water only. 25 kg of the mixture (1 bag) is mixed with 6.0 liters of water. Clear, cold water is poured in a clean vessel, **NIVELITH FS** is added and using a slow driven propeller mixer of maximum rotation speed 600 r./min. the spread coating powder is mixed well until smooth, homogenous consistency is achieved. It is recommended to let the mixed material sit for at least 2 minutes and then shortly mix again. The material is then immediately applied on the substrate and finished by a steel float if necessary.

Workability. Ideally, the application should be carried out immediately after mixing the mixture with water. As a result of the presence of an accelerator additive mixture loses workability after 20 minutes.

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

Application of mix. Before application it is necessary to pre-treat the base (see above). The material is applied right after mixing with water. The levelling layer is poured from the vessel in a prepared section and spread by steel float, tooth trowel or a levelling bar with adjustable distance from the base. The ideal thickness in one working round is from 2 mm to 5 mm. For perfect deaeration of the mix, it is recommended to use a needle roller.

Surface treatment. Applied **NIVELITH FS** layer shall be treated immediately after initial setting to avoid extremely quick drying caused especially by direct exposure to sun, draught and wind effects. Ideal treatment means to use the **DENSOCURE W** treatment agent.

6. Packing and storage

The product is packed into 25 kg PE-lined paper bags. The product must be efficiently protected against moisture during transportation and storage. The shelf life of the product in original 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.

7. Specific consumption

Specific consumption of dry mortar is 1.5 kg/m² at 1 mm of layer thickness

8. Health protection at work

Handling **NIVELITH FS** 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 (par. 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 orders are 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.



11. CE marking

 1301	
BETOSAN s.r.o. Na Dolinách 28, 147 00 Prague 4	
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EN 13813:2002 CT-C12-F5-B1,5-A22	
NIVELITH FS Self-levelling material for floor layers	
Reaction to fire	class A1
Abrasion resistance	class A22
Adhesion to base	class B1.5
Compressive strength	class C12
Tensile bending strength	class F5

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MINERAL FLOOR SYSTEMS

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