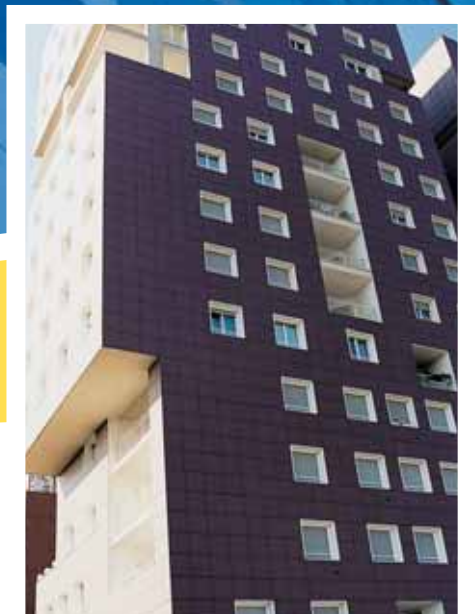


topstuk

09/13 133



groutings and sealants

TOPSTUK

Cement-based grouting with high percentage of elastomeric resins for 3 to 15 mm joints. Microshield system provides active protection that helps to prevent the growth of bacteria, fungi and mould, which can cause stains and deterioration of the grouting. Highly sanitizing.





23±1%



2



5-35°C



2 h



3-15 mm



topstuk



MAIN FEATURES

- | | |
|-------------------------|--------------------|
| Good flexibility | Mould-inhibiting |
| Monocomponent | Fungicide |
| Water repellent | Bacteriostatic |
| High degree of hardness | Abrasion resistant |
| UV resistant | |
| Frost proof | |

APPEARANCE

Powder in 2 colours (see colour card in www.technokolla.com)

STORAGE

12 months in dry place

FIELDS OF USE

- Grouting all types of ceramic tiles, both indoors and outdoors. Particularly suitable for grouting 3 to 15 mm joints.
- TOPSTUK has been created for grouting joints on facades or outdoor terraces. Thanks to its special formula, which makes it highly flexible, the product provides optimum resistance to dimensional variations caused by thermal shocks to which outdoor ceramic cladding is subjected.

LOW-VOC
product

TESTED BY
EUROFINS

TECHNICAL SPECIFICATIONS OF THE PRODUCT

TOPSTUK mainly consists of high-strength cements, mineral charges, synthetic resins and specific additives.

MICROSHIELD SYSTEM provides active protection that helps to prevent the growth of bacteria, fungi and mould, which can cause stains and deterioration of the grouting.

Moreover, the new COLOR SAVE SYSTEM prevents the colors of the grouting from fading over time, ensuring a colorfast and extremely bright finish. Lastly, thanks to WATER REPELLENT SYSTEM Technokolla's grouting range becomes water repellent and can therefore be used for swimming pools, tanks, etc., without being damaged by the water they contain.

For further details, ask the technical office for the safety brief or download it from the web site www.technokolla.com.



RECOMMENDED ACCESSORIES



437209

Rubber trowel



437124

Washing trough with rollers +
float on handle

LABORATORY TESTS

Tests conducted in the laboratories of Centro Ceramico of Bologna on Technokolla's cement-based grouting with MICROSIELD SYSTEM active protection have established that the bacterial survival rate is 0, while colonization by mould and fungi is inhibited.

Resistance to fungal growth test in accordance with standard: BS 5980



PHOTO 1

PHOTO 2

Photo 1 shows the sample of conventional grouting that has just been inoculated by colonies of mould spores.

Photo 2 shows the same sample after 14 days of incubation, with mould growth index 4 (31-70%).

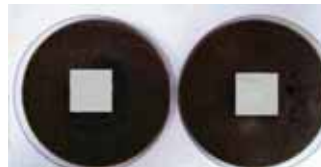


PHOTO 3

PHOTO 4

In **Photo 3**, the sample of Technokolla's grouting with the addition of Microshield system active protection additive has just been inoculated by colonies of mould spores.

Photo 4 shows the same sample after 14 days of incubation where no mould appears to have grown, thus corresponding to mould growth index 0 (no visible growth).

HOW TO PREPARE THE MIXTURE

Blend TOPSTUK with 5.75 l. of clean water per 25 kg bag (23±1%) until mixture is creamy. It is of vital importance for the paste to be lump-free and perfectly uniform in colour. Use perfectly clean tools and a low speed blender (approx. 500 rpm) when preparing the mixture. Small quantities of TOPSTUK can also be mixed by hand but bear in mind that different amounts of water between one batch and the next can result in slightly different colour joints.

GROUTING OPERATION

Apply TOPSTUK with the special rubber trowel, and make sure that the joints are filled completely. Wipe off any excess grouting with the edge of the applicator. Once the grouting begins to harden, the surface can be wiped clean with a clean, damp sponge. Traces of grouting that remain on the tile surfaces must be removed immediately, as TOPSTUK's high percentage of resin would make them difficult to remove the day after. A whitish layer, that mainly consists of calcium carbonate and is commonly called bloom, sometimes forms on the surface of grouting made with cement-based materials. Bloom is caused by many factors that may interact with each other as the grouting dries. The water used for the mixture is one of these, and becomes a harmful factor if too much is used or when various mixtures are prepared with different amounts of water. The drying time also affects the colour shade considerably, as it is influenced by the temperature and humidity of the air, and the residual humidity in the materials used for fixing, such as adhesives, or substrates that are not yet fully dried. Our advice is: dose the water used for the mixture in compliance with the instructions on the pack; avoid making lots of different mixtures; never stop grouting a room halfway and then continue the day after; always wait until the substrate and adhesive have completely dried before grouting.

AVAILABLE COLOURS

01 MANHATTAN

03 ASH

TILE in cm	GROUTING consumption g/m ²					
	joint in mm					
	3	4	6	8	10	15
10x10x0.6	540	720	1100	1450	1800	2700
7.5x15x0.7	630	840	1300	1700	2100	3200
15x15x0.9	540	720	110	1450	1800	2700
12x24x0.9		680	1000	1350	1700	2500
12x24x1.4		1050	1600	2100	2600	4000
20x20x0.9	400	540	800	1100	1350	2000
20x30x0.9	340	450	680	900	1200	1700
30x30x1	300	400	600	800	1000	1500
30x60x1	225	300	450	600	750	1150
40x40x1	225	300	450	600	750	1150
50x50x1	180	240	360	480	600	900
60x120x1.1	120	165	250	330	410	620

CONSUMPTION CALCULATION FORMULA

$$A \times B \times \left[\frac{C + D}{C \times D} \right] \times 150 = \frac{g}{m^2}$$

in mm in cm



WARNINGS AND RECOMMENDATIONS

- do not exceed the recommended amount of water in the mixture
- the mixture must never be fluid
- first perform a cleanability test when using dark colours on light polished porcelain stoneware or on natural stone
- if the tiles are very absorbent, it is advisable to wet the surface before grouting
- never interrupt the grouting operations for more than two hours in the same room or area
- do not add anything to the product that is not specified in this data sheet

TECHNICAL DATA	VALUE	REQUIREMENT	STANDARD
Appearance	granular powder		
Temperature during application	min. +5°C, max +35°C		
Water used for mixing	5.75 l. – 25 kg bag (23±1%)		
Curing time	3 min		
Pot life	* 2 h		
Thermal resistance	from -30 °C to +80°C		
Abrasion resistance	≤ 1000 mm ³	≤ 1000 mm ³	EN 12808-2
Flexural strength after dry storage	7.0 N/mm ²	≥ 2.5 N/mm ²	EN 12808-3
Bending strength after freezing/thawing cycles	3.0 N/mm ²	≥ 2.5 N/mm ²	EN 12808-3
Compressive strength after dry storage	28.0 N/mm ²	≥ 15 N/mm ²	EN 12808-3
Compressive strength after freezing/thawing cycles	25.0 N/mm ²	≥ 15 N/mm ²	EN 12808-3
Shrinkage	1.8 mm/m	≤ 3 mm/m	EN 12808-4
Water absorption after 30 min.	0.1 g	≤ 2 g	EN 12808-5
Water absorption after 240 min.	0.25 g	≤ 5 g	EN 12808-5
Resistance to the growth of bacteria S% (survival):	0%		protocol CCB (RP 335/10/S CCB)
Degree of mould colonization C% (growth):	no visible growth		BS 5980 (RP 332/10/S CCB)

EMICODE

Emission class	r.p. No. Eurofins
EC1 Plus	392-2013-00019201

TIME TO WAIT BEFORE GROUTING

Floor with adhesive	*24 h
Floor with quick-setting adhesive	*4-6 h
Floor with dry-shake finish (mortar)	*8-10 days
Wall with adhesive	*5-6 h
Wall with quick setting adhesive	* 2 h
Ready for use	*7 after days
Treadable	* after 24 h

* these times refer to a temperature of 23°C-50% R.H.. They are shorter at higher temperatures and longer at lower temperatures.

SPECIFICATION

Ceramic floor and wall tiles must be grouted using cement-based powder grouting, such as Technokolla's TOPSTUK, used for filling joints up to 15 mm.

Technokolla reminds you to examine the "notes" document that completes the information in this data sheet. The document can be downloaded in the pdf format from the website www.technokolla.com.

The advice about technical matters in the technical data sheets, or given verbally or in writing by our personnel as part of our customer assistance service, is the result of our best and most up to date experience. Since we are unable to personally modify the conditions in the building site or the way the work is carried out, this information is purely indicative and, thus, binds us neither legally nor in any other way in relation third parties. This information does not relieve the end user from being responsible for testing our products so as to make sure they are fit for the required use. We therefore strongly advise the customer/user to subject Technokolla's products to preventive tests in order to ensure that they are suitable. The end user is also responsible for checking to make sure that this technical data sheet is not obsolete and that more recent editions have not replaced it. Thus, before using our products, you are advised to download the most up to date version of the technical data sheet from our web site www.technokolla.com.