

technostuk G.F.

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Microshield
System



Water Repellent
System



Color Save
System

groutings and sealants

TECHNOSTUK G.F.

Cement-based grouting for 0 to 4 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.





33±1%



5



5-35°C



2 h



0-4 mm



with Tc-Stuk

technostuk G.F.



MAIN FEATURES

High degree of hardness
 UV resistant
 Frost proof
 Optimum workability
 Water repellent

Mould-inhibiting
 Fungicide
 Sanitizing
 Bacteriostatic
 Abrasion resistant



APPEARANCE

Fine powder in 5 colours (see colour card in www.technokolla.com)

STORAGE

12 months in dry place

FIELDS OF USE

- Grouting joints between all types of ceramic tiles, both indoors and outdoors.
- Grouting marble.
- Laying tiles with 0 to 4 mm joints
- Grouting in swimming pools.
- Grouting vitreous mosaic.

TECHNICAL SPECIFICATIONS OF THE PRODUCT

TECHNOSTUK G.F. mainly consists of high-strength cements, ultra-fine 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 range of grouting compounds becomes water repellent and can therefore be used for swimming pools, tanks and so forth without being damaged by the water they contain.

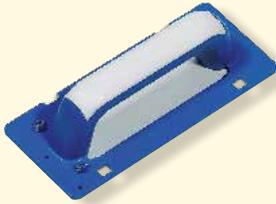
For further details, ask the technical office for the safety brief or download it from the web site www.technokolla.com.



RECOMMENDED ACCESSORIES



Applicator



Handle for sponges and felts



Sweepex sponge



Washing trough with 3 rollers

LABORATORY TESTS

Tests conducted in the laboratories of Centro Ceramico of Bologna on Technokolla's cement-based grouting compounds 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

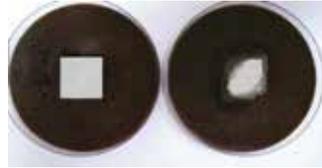


PHOTO 1

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%).

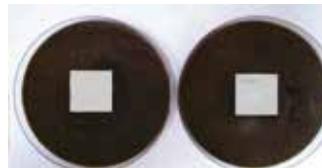


PHOTO 3

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 TECHNOSTUK G.F. with 8.25 l. of clean water per 25 kg bag and 1.65 l. of clean water per 5 kg bag (33±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 TECHNOSTUK G.F. can also be mixed by hand but bear in mind that varying amounts of water between one batch and the next can result in slightly different colour joints. It is advisable to blend the mixture with TC-STUK instead of water if the flooring is subjected to intensive traffic, on elastic substrates or when applying to façades and in swimming pools.

GROUTING OPERATION

Apply TECHNOSTUK G.F. 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. Any traces of grouting left on the tiles can be removed easily the next day using a soft, dry cloth if the mixture has been made with water alone. If TC-STUK is used instead of the water, this operation must be done immediately after the surfaces have been cleaned with a sponge. 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

00 WHITE
01 MANHATTAN

03 ASH
08 BEIGE

29 LIGHT GREY

GROUTING consumption g/m²

TILE in cm	JOINT in mm			
	1	2	3	4
Vitreous mosaic 2x2x0.38		1200		
2x2x4		1050		
5x5x4		420	620	830
10x10x6	160	310	470	620
7.5x15x0.7	180	360	550	728
15x15x0.9	160	310	470	624
12x24x0.9				585
20x20x0.9	120	230	350	468
20x30x0.9	100	200	290	390
30x30x1		170	260	350
30x60x1		130	195	260
40x40x1		130	195	260
50x50x1		100	160	210
60x120x1.1		70	110	140

CONSUMPTION CALCULATION FORMULA

$$A \times B \times \left[\frac{C+D}{C \times D} \right] \times 130 = \frac{g}{m^2}$$

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
- do not add anything to the product that is not specified in this data sheet
- it is advisable to blend the mixture with TC-STUK instead of water for grouting in swimming pools

technostuk G.F.

TECHNICAL DATA	VALUE	REQUIREMENT	STANDARD
Appearance	fine powder		
Temperature during application	min. +5°C, max +35°C		
Water used for mixing	~ 8.25 l. - 25 kg bag (33±1%) / 1.65 l. - 5 kg bag (33±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	~ 6.5 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	~ 40.0 N/mm ²	≥ 15 N/mm ²	EN 12808-3
Compressive strength after freezing/thawing cycles	~ 30.0 N/mm ²	≥ 15 N/mm ²	EN 12808-3
Shrinkage	~ 2.8 mm/m	≤ 3 mm/m	EN 12808-4
Water absorption after 30 min.	~ 1.5 g	≤ 2 g	EN 12808-5
Water absorption after 240 min.	~ 2.5 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)

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	* after 7 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 with Microshield system additive, which helps to prevent the growth of bacteria, fungi and mould, such as Technokolla's TECHNOSTUK G.F., used for grouting joints up to 4 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.

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