

# FleksFuga® (MasterCrete™ TIL 555)

Cement Based Flexible Grout for Ceramics and Tiles

## Material Description

**FleksFuga®** is a cement-based, decorative grout for ceramic, tile, porcelain, marble, and granite joints. It is water-resistant and resistant to vibrations as well as thermal expansion and contraction.

Complies with EN 13888: CG2 WA

CG2= Enhanced Cement based grouting (fulfilling additional properties)

W= Reduced Water absorption property

A= Highly abrasion-resistant

## Areas of Application

- Indoor and outdoor use, on vertical and horizontal surfaces
- In filling the grout joints of ceramics, tiles, marble and granite adhered on existing surfaces
- Shopping centers
- On commercial and industrial floors
- In hotels
- In hospitals
- in wet areas
- Residential areas

## Characteristics and Benefits


- Easy to prepare and apply.
- Does not scratch glazed tile surfaces.
- Suitable for grout joint widths of 2–8 mm.
- Provides excellent adhesion to the edges of tiles without cracking.
- Extended pot life.
- Provides a smooth surface finish.
- Low water absorption; improved stain resistance and easy cleaning.
- Resistant to freeze–thaw cycles.
- Resistant to impacts, vibrations and household cleaning detergents.

## Processing Method

### (A) Preparation of Substrate

Before filling the grout joints of ceramics and tiles, the adhesive used must be allowed to harden sufficiently. Just before the grout is applied, the surface must be cleaned with mechanical methods that do not damage the tiles and dampened with a wet sponge.

## Technical Properties

Structure of the Material	It contains mineral fillings, synthetic additives and special cement.	
Compressive Strength	≥15 N/mm <sup>2</sup>	
Flexural Strength	≥2,50 N/mm <sup>2</sup>	
Water Absorption: 30 minutes	≤2 gr	WK 
240 minutes	≤5 gr	
Abrasion Resistance	≤1000 mm <sup>3</sup>	
Application Surface Temperature	+5°C to +25°C	
Service Temperature	-20°C to +80°C	
Slaking Time (Maturation Period)	3-5 minutes	
Working Time	2 hours	
Initial Moistening	10 - 20 minutes	
Walkable After	24 hours	

The above values are given for +23 °C and 50% relative humidity. Higher temperatures shorten these times, while lower temperatures extend them.

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## (B) Mixing

Pour the amount of water indicated in the Mixing Ratios table into a clean mixing container using a measuring cup. Add FleksFuga® slowly while mixing with a mixer at a speed of 400–600 rpm for about 3–5 minutes until a homogeneous, lump-free mixture is obtained. Allow the mixture to rest for about 3–5 minutes and then remix for about 30 seconds before use.

### Mixing Ratio

FleksFuga®	Mixing water	Wet density
For 1 kg powder	Max. 0,32 liter	~1,80 kg/L
For 5 kg bag	Max. 1,60 liter	
For 20 kg bag	Max. 6,40 liter	

## (C) Processing

Spread **FleksFuga®** over the tiles with a rubber trowel, ensuring the grout joints are completely filled. Remove the excess material from the surface with diagonal movements. For deep joints, allow the material to settle slightly and then repeat the filling procedure. Wait until the grout is firm enough to resist light finger pressure. At this stage, carry out the initial cleaning with a damp sponge, and, if necessary, apply light water misting to support hydration. After shaping the joints with a wet sponge, allow the grout to cure and dry. Once hardened (at the latest by the following day), polish the tile surface with a clean, dry cloth.

## Consumption

Ceramic Dimensions	FleksFuga®					
	Coverage Table for Cement-Based Grouts (Joint depth: 8 mm)					
	Grouting Widths					
	2 mm (g/m²)	3 mm (g/m²)	4 mm (g/m²)	5 mm (g/m²)	6 mm (g/m²)	8 mm (g/m²)
10x10	500	700	1000	1250	1500	2000
10x20	350	550	750	950	1150	1550
15x15	300	450	600	800	950	1250
15x20	250	400	550	750	900	1150
20x20	250	350	500	700	800	1050
20x25	200	350	500	600	750	1000
20x30	200	300	450	550	650	900
30x30	150	250	350	450	550	700

Values are theoretical; based on powder consumption.

## Point to Consider

- During the application of **FleksFuga®**, if the ambient or substrate temperature is below +5°C or above +25°C, the application should be postponed until suitable conditions are achieved. In addition, the product should not be applied under excessively hot, rainy, or windy weather conditions.
- Do not add water and/or new material to a **FleksFuga®** mixture that has begun to set must not be retempered with water or fresh material. Ceramics with high water absorbing capacity should be lightly moistened before the application, without leaving free water on the surface.
- About 10-20 minutes after the application of the material a test must be made by exerting pressure with a finger.
- If no material is getting smudged on the fingers in the finger test, the process of giving initial moistening (light water misting) of the joints should be carried out. Thus dust extraction of the joints, or their getting cracked is prevented and a perfect surface regularity is achieved.
- The surface cleansing procedure must not be cleaned using sawdust.

## Colors

**FleksFuga®** for 20 kg:

- Grey
- White

**FleksFuga®** for 5 kg:

- Grey
- White
- Black
- Anthracite
- Light Grey
- Bahama Beige
- Jasmine
- Caramel
- Light Brown
- Brown

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## Packaging

20 kg polyethylene-reinforced kraft bag, 5 kg plastic bag

## Cleaning of Tools

All the tools and equipment must be cleaned with water after the application. After **FleksFuga®** is hardened, it can only be removed from the surface mechanically.

## Shelf Life

12 months if stored according to manufacturer's instructions in unopened container. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

## Storage

Must be stored in unopened original packing, and in cool and dry environment protected from freezing. In short-term storing, maximum 3 palettes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

## Health and Safety

During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

## Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

## Contact

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GDOP NO 2301002	
TS EN 13888-1	
FleksFuga® CG2WA	
Azaltılmış Su Emme ve Yüksek Aşınma Dayanımı. İlave Nitelikli Geliştirilmiş, Cimentolu Derz Dolgu Malzemesi Improved cementitious grout with additional characteristics of reduced water absorption and high abrasion resistance	
Kuru Depolanmadan Sonra Eğilme Dayanımı Flexural Strength After Dry Storage	≥ 2.5 N/mm <sup>2</sup>
Donma-Çözülme Çev. Sonra Eğilme Dayanımı Flexural Strength After Freeze-Thaw Cycle	≥ 2.5 N/mm <sup>2</sup>
Kuru Depolanmadan Sonra Basınç Dayanımı Compressive Strength After Dry Storage	≥ 15 N/mm <sup>2</sup>
Donma-Çözülme Çev. Sonra Basınç Dayanımı Compressive Strength After Freeze-Thaw Cycle	≥ 15 N/mm <sup>2</sup>
Büzülme Shrinkage	≤ 3 mm/m
Yüksek Aşınma Direnci High Abrasion Resistance	≤ 1 000 mm <sup>3</sup>
Azaltılmış Su Emme, 30 Dakika Sonra Reduced Water Absorption After 30 Minutes	≤ 2 g
Azaltılmış Su Emme, 240 Dakika Sonra Reduced Water Absorption After 240 Minutes	≤ 5 g

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