FUGASTAR 3–15

Improved and hydrophobic cementitious sealant with high abrasion resistance for grouting ceramic coatings. For joints from 3 to 15 mm

TECHNICAL FEATURES

FUGASTAR 3-15 it was formulated by the **HERAKEM** laboratory, with high mechanical strength cements, mineral fillers with selected grain sizes, synthetic resins, water repellent additives and colored pigments resistant to alkalis and detergents.
FUGASTAR 3-15 is available in different colors, it resists light over time while maintaining the original color; mixed with water, in the right proportions and suitably used, it allows to obtain a stucco with excellent workability with characteristics of water repellence, chromatic uniformity with no efflorescence, excellent resistance to abrasion, compression and bending even after freeze / thaw cycles and therefore excellent durability.

FIELD OF APPLICATION

FUGASTAR 3–15 it is suitable for floor and wall grouting of indoor and outdoor tiled surfaces consisting of any type of ceramic, terracotta, klinker and natural stone tiles, with joints up to 15 mm wide.

PRELIMINARY CHECKS AND PREPARATION OF THE JOINTS

Make sure that the ceramic tiles do not have problems of cleaning and surface absorption: some types of tiles (e.g. polished porcelain stoneware) or natural stones have microporosity and surface roughness that can cause staining of the surface itself and make cleaning very difficult. In these cases it is advisable to carry out preliminary application tests and in any case avoid using, if possible, sealants with contrasting or too dark colors and verify that an accurate final cleaning is possible. Check that the adhesive or mortar used for bonding the tiles is completely hardened and dry. If the installation has been made with adhesive, the covering can be grouted after 4–8 hours; that of the floors after 24–36 hours. If the installation was carried out with mortar (traditional cement installation), it is recommended to carry out the grouting after 2–3 days for the coverings and after 8–10 days for the floors. The joints must be clean, free of dust and empty throughout the thickness of the tiles. Any traces of adhesive or mortar flowing back between the joints must be removed. If the grouting involves very absorbent tiles and in the presence of very hot climates, it is necessary to moisten the joints by passing a sponge soaked in water, being very careful to remove any residual stagnant water from the joints, to avoid the formation of halos and surface stains. Clearer.

MIX PREPARATION

Pour the right amount of water (18 ÷ 20%) into a clean container and slowly add the powder, mixing with a low–speed electric drill equipped with a mixing propeller until a homogeneous lump–free mixture is obtained. Leave the mixture to rest for at least 5 minutes and mix again briefly for a few seconds. Use the mixture within about 2 hours of preparation.

GROUTING THE TILED SURFACE

Apply the mixture in the joints using the special rubber trowel making diagonal movements with respect to the direction of the joints, taking care to fill them throughout the thickness of the tiles without leaving gaps. Excess material is always removed using the rubber trowel.

CLEANING AND FINISHING

Once the waiting time for cleaning has elapsed, i.e. when the sealant has lost its plasticity and has become opaque (normally from 15 to 30 minutes depending on the absorption of the tiles and the climatic conditions), it is possible to proceed with cleaning and finishing. surface of the joints using a damp rigid cellulose sponge. Always make diagonal movements with respect to the direction of the joints in order not to partially empty them. Rinse the sponge frequently, using two different containers of water: one to remove the excess mixture from the sponge and the other of clean water to rinse the sponge. If cleaning is carried out too early, i.e. when the sealant is still plastic, the joints can be partially emptied and the final color of the grouting will not be homogeneous. The veil of dried product that remains on the surface of the tiles can be removed later using a dry cloth. If, after cleaning, traces of product are still present on the surface of the tiles, it is possible, after about 10 days of curing, to use the acid cleaner. Do not use the acid cleaner in the case of non–acid resistant materials such as marble or limestone.

ITEM OF SPECIFICATIONS

The joints in floors and walls between 3 and 15 mm wide must be grouted with an improved colored cement–based joint sealant, with reduced water absorption and high abrasion resistance, type **CG2WA** according to the regulations **UNI EN 13888**, type **FUGASTAR 3-15** by **HERAKEM**.

WARNINGS

- Protect from frost and washout for at least 48 hours.
- Do not add lime or cement to the product.
- For the mix, use clean water. In tubs and swimming pools and in particularly stressed poses, mix **FUGASTAR 3-15** with **HERALAX FLEX** synthetic latex instead of water.
- Excessive quantities of water for the mixture lower the mechanical characteristics of the hardened product and can create chromatic variations of the grouting.
- Any rising damp from the substrate or moisture present in the mortar or adhesive used for laying the ceramic tiles can cause the appearance of whitish efflorescence.
- Mixes made with different quantities of water, can lead to different final shades.
- In very hot or windy climates, it is advisable to moisten the grouting after a few hours from application, in order to favor the hydration of the cement contained in the product.
- Do not use the product for applications not indicated on this technical data sheet
- The tools used for laying can be cleaned with water before the adhesive hardens; subsequently, cleaning can only take place by mechanical removal. Any residual sealant on the surface of the tiles must also be cleaned before hardening with a damp cloth.
- Depending on the degree of absorption of the tiles, it is possible to obtain shades that are lighter (non-absorbent tiles) or darker (absorbent tiles) than the color in the chart.

CONSUMPTION TABLE ACCORDING TO THE SIZE OF THE TILES AND THE SIZE OF THE JOINTS (kg/m²)

TILE SIZE (mm)	WIDTH OF THE JOINT (mm)					
	3 mm	5 mm	8 mm	10 mm	12 mm	15 mm
75x150x6	1,9					
100x100x6	0,8					
100x100x10	0,6	1,0				
100x200x6	0,6	1,0				
100x200x10	1,0	1,6				
150x150x6	0,4	0,7				
200x200x8	0,7	1,2	1,9			
250x330x8	0,4	0,6	1,0	1,3	1,5	1,9
300x300x8	0,4	0,6	1,0	1,3	1,5	1,9

TILE SIZE (mm)	WIDTH OF THE JOINT (mm)					
	3 mm	5 mm	8 mm	10 mm	12 mm	15 mm
300x300x10	0,3	0,4	0,7	0,9	1,1	1,3
300x600x10	0,3	0,4	0,7	0,9	1,0	1,3
330x330x10	0,3	0,5	0,9	1,1	1,3	1,6
400x400x10	0,2	0,4	0,6	0,8	1,0	1,2
450x450x12	0,3	0,5	0,8	1,0	1,2	1,5
500x500x12	0,2	0,4	0,6	0,8	1,0	1,2
600x600x10	0,3	0,4	0,7	0,9	1,0	1,3
600x600x12	0,2	0,4	0,6	0,8	0,9	1,2

FORMULA FOR THE CALCULATION OF CONSUMPTIONS

$$\frac{(A+B)}{(A \times B)} \times C \times D \times 1,6 = kg/m^2$$

A= tile length in mm
B= tile width in mm
C= tile thickness in mm
D= width of the joint in mm

TECHNICAL DATA *(at +22±1°C and 55±5% R.H.)

Appearance	grainy powder	Execution of floor joints	after 24-36 hours*
Color	check the color chart	Execution of floor joints with traditional mortar laying	after 8-10 days*
Density of the powder	about 1500 kg/m³	Resistance to humidity	excellent
Storage	12 months in the original packaging in a dry place	Resistance to solvents and oils	excellent
Flammability	no	Resistance to acids	poor if pH < 3
Customs heading	38245090	Compressive strength after 28 days	Complies with EN 13888 as CG2WA
Mixing ratio	about 18 ÷ 20 %	Flexural strength after 28 days	Complies with EN 13888 as CG2WA
Mixing water every 5 kg	0,9 ÷ 1 liters	Compressive strength after freeze / thaw cycles	Complies with EN 13888 as CG2WA
Consistency of the mix	fluid paste	Flexural strength after freeze / thaw cycles	Complies with EN 13888 as CG2WA
Density	about 1900 kg/m³	Abrasion resistance	Complies with EN 13888 as CG2WA
Pot life of the mix	about 2 hours*	Water absorption after 30 minutes	Complies with EN 13888 as CG2WA
Application temperature	from +5°C to +35°C	Water absorption after 4 hours	Complies with EN 13888 as CG2WA
Transitability	after 24 hours*	Withdrawal	Complies with EN 13888 as CG2WA
Execution of wall joints	after 4-8 hours*	**Packaging**	**25 kg bag** **box of 5 bags of 5 kg**

PRODUCT FOR PROFESSIONAL USE ONLY

All the data and indications given in this technical data sheet, although resulting from laboratory tests carried out and from our direct application experiences, due to the infinite number of variables linked to the construction site conditions, are to be considered, in any case, purely indicative. Therefore, before applying the product, the user is required to establish whether it is suitable for the use envisaged by him, in the specific hygrothermal and application conditions foreseen at the time of use and, in any case, he assumes all responsibility for it. We are not liable for damage to people or things deriving from improper use of the product. We reserve the right to modify the data contained therein as a result of improvements and technical progress.