Fugabella® Color

Decorative Resina-cemento® (resin-cement) for grouting of ceramic and porcelain tiles, mosaic and natural stone in a 50-colour design range. Green product for bio-building.

The groundbreaking hybrid grout Fugabella® Color is ideal when decorating any surface in porcelain, ceramic tiles, mosaic and natural stone.

Fugabella® Color achieves performance characteristics such as water-repellence, very low water absorption, high surface hardness, high resistance to the most common acidic substances and total colour uniformity.







Rating 4*

- × Regional Mineral ≥ 60%
- √ Recycled Mineral ≥ 30%
- $\sqrt{CO_2} \le 250 \text{ g/kg}$
- VOC Very Low Emission
- √ Recyclable
- * Rating based on average colour formulations

- 1. Fine-grain finish
- 2. Superior flexibility
- 3. Water-repellent compound with water-drop effect
- 4. High CATAS-tested chromatic uniformity
- 5. 50-colour collection, color designer Piero Lissoni
- 6. Easy to clean and maintain
- 7. Suitable for underfloor heating systems
- 8. Can be recycled as mineral inert material, avoiding waste disposal costs and environmental impact
- 9. Naturally antibacterial

kerakoll the greenbuilding company

Kerakoli Fugabella® Color Code: P1091 2019/07 GCC/EN

Areas of application

- → High-performance grouting of joints from 0 to 20 mm, with smooth finish, high degree of hardness, water-repellence with water-drop effect.

 Materials to be grouted:
 - porcelain tiles, low thickness slabs, ceramic tiles, klinker, cotto, glass and ceramic mosaic, of all types and formats
 - natural stone, recomposed materials, marble.
- → Intended use:
 - internal and external flooring and walls, in domestic, commercial and industrial applications and street furniture, in

- environments subject to heavy traffic, also in areas subject to thermal shock and freezing
- swimming pools, tanks and fountains
- underfloor heating systems.

Do not use on joints more than 20 mm in width, on floors and walls where specific chemical resistances or absolutely no water absorption are required; to grout elastic expansion or fractionising joints; on substrates which are highly deformable, not perfectly dry or subject to moisture rising.

Instructions for use

→ Preparation of substrates

Before grouting joints, check that tiles have been laid correctly and are anchored perfectly to the substrate. Substrates must be perfectly dry. Grout joints in accordance with the recommended waiting time indicated on the relative data sheet for the adhesive used. For mortar substrates, wait at least 7 – 14 days depending on screed thickness, ambient weather conditions and on the level of absorption of the covering and the substrate. Any water or moisture rising can cause salt to build up on the surface of the grout or cause shade variations on account of the uneven evaporation of remaining water through the grout.

Joints must be free from any excess adhesive, even if already hardened, and must be of an even depth of at least $^2/_3$ of the overall thickness of the tile covering. This is necessary to prevent different drying times of each different thickness, with subsequent shade variations.

Any dust and loose debris must be removed from the joints by carefully cleaning them with a vacuum cleaner. In the case of highly absorbent tiles or high temperatures, a damp sponge should be passed across the surface of the tilework prior to grouting joints, in order to prevent any water stagnation.

Before grouting joints with contrasting colours, check the cleanability, as highly porous surfaces may make cleaning difficult. It is advisable to perform a preliminary test on tiles not to be laid or in a small, concealed area. In these cases we recommend treating the covering with specific protective products, being careful to avoid applying them to the joints.

→ Preparation

Prepare Fugabella® Color in a clean container, first of all pouring in a quantity of water equal to approximately ¾ of the amount required. Gradually add Fugabella® Color to the container, mixing the paste from the bottom upwards with a low-rev ($\approx 400/\text{min}$) helicoidal agitator. Add more water until the desired consistency is obtained. The mixture must be of smooth consistency and without any lumps. For best results, and to mix larger quantities of the grout, a stirring device with vertical blades and slow rotation is recommended. Specific polymers with high-dispersion properties ensure that Fugabella® Color is immediately ready for use. Mix a quantity to be used within 60 min. at +23 min.°C 50% R.H. The amount of water to be added, indicated on the packaging, is an approximate guide and will vary depending on the different colours. It is possible to obtain mixtures with consistency of variable thixotropy according to the application to be made. Adding extra water does not improve the workability and the cleanability of the grout, and may cause shrinkage in the plastic phase of drying and result in less effective final performance. Prepare all mixtures required to complete the process using the same amount of water, in order to avoid any variations in grout shade.

→ Application

Fugabella® Color must be applied evenly on the tile covering with a spreader or hard rubber float. Grout material has to be completely filled between entire joint areas, the application has to be done diagonally with respect to the joints. Remove most of the excess grout immediately, leaving only a thin film on the tile.

Instructions for use

→ Cleaning

Begin cleaning the tilework when the grout is touch dry into the joint. On completion, clean up the surface using a thick, large-sized sponge damped in clean water to avoid removing grout from the joints. Make sure clean water is used at all times, using appropriate trays with grills and cleaning rollers for the sponge.

Use circular movements to soften the film of hardened grout on the tiles. Finish cleaning up by dragging the sponge diagonally across the tiles while applying water evenly over the tiles, in order to prevent any shade variations. Residual traces of grout can be removed from tools with water before the product has hardened.

Special notes

- → When using Fugabella® Color to grout joints in large surface areas, use suitable electrical equipment to increase application speed and cleaning times. In particular, cleaning with electric sponges can be easily carried out and ensures superior coverage and perfect results in aesthetic terms.
- → Before grouting highly porous surface coverings, or at high temperatures, it is advisable to wipe a damp sponge over the surface to counteract the porosity or to cool the surface, being careful not to cause water to stagnate in the joints.
- → It is recommended to use materials from the same production batch throughout.
- → The partial or full replacement of mixing water with Fugaflex Eco eco-friendly flexibilizing latex for cement-based grouts, gives increased flexibility to Fugabella® Color, reduces the elastic modulus, increases resistance to water and substrate adhesion. Its use is recommended in the following specific applications: laying on wooden floors, laving on substrates or using materials with high thermal expansion or where surfaces are to be subsequently smoothed.
- → Approved for marine use.

Certificates and marks



























Abstract

Certified, high-performance grouting of ceramic tiles, porcelain tiles, low thickness slabs, marble and natural stone with eco-friendly, naturally bacteriostatic and fungistatic mineral grout with high colour fastness, compliant with standard ISO 13007-3 – class CG2 WA, GreenBuilding Rating® 4, such as Fugabella® Color by Kerakoll Spa. Joints must be dry and free from traces of adhesive and loose debris. Use a spreader or hard rubber float to apply the grout and suitable sponges and clean water to clean joints on completion. Joints of ____ mm width and tiles ____ x ___ cm in size will give an average coverage of approx. ____ kg/m². Existing elastic expansion and fractionizing joints must be respected.

kerakoll

ıgabella® Color colour chart	Colour Fastness* * GSc (Daylight) EN ISO 105-A05 standar
01	4,5
02	4,5
03	4,5
04	4,5
05	4,5
06	4,5
07	4,5
08	4,5
09	5
10	4,5
11	5
12	5
13	4,5
14	4,5
15	4
16	4
17	4,5
18	4,5
19	4,5
20	5
21	4,5
22	4,5
23	4,5
24	4,5
25	4,5
26	
27	4,5
28	5
29	4,5
30	4,5
31 32	4,5
	4,5
33	4,5
34	4,5
35	4,5
36	4,5
37	4,5
38	4,5
39	4,5
40	4,5
41	4
42	3,5
43	5
44	4,5
45	5
46	4,5
47	5
48	4,5
49	4,5

Legend



Technical data compliant with Kerak	oll Quality Standard	
Appearance	coloured pre-mixed	
Apparent volumetric mass	$\approx 1.22 \text{ kg/dm}^3$	UEAtc/CSTB 2435
Average granulometric composition	≈ 70 µm	
Mixing water:		
- 3 kg bag	$\approx 0.71/1$ bag 3 kg	
- 20 kg bag	≈ 4.5 l / 1 bag 20 kg	
Shelf life:		
- 3 kg bag	≈ 24 months in the original packaging in dry environment	
- 20 kg bag	≈ 12 months in the original packaging in dry environment	
Pack	bags 20 kg – 3 kg	ISO 11600
Specific weight of the mixture	≈ 1.86 kg/dm³	UNI 7121
Pot life	≥ 50 min.	
Temperature range for application	from +5 °C to +35 °C	
Width of joints	from 0 to 20 mm	
Grouting after laying:		
- with adhesive	see characteristics of adhesive	
- mortar	≈ 7 – 14 days	
Foot traffic	≈ 3 hrs	
Foot traffic at +5 °C	≈ 10 hrs	
Foot traffic at +35 °C	≈ 2 hrs	
Interval before normal use	≈ 24 hrs	
Ready for use at +5 °C	≈ 3 days	
Ready for use at +35 °C	≈ 8 hrs	
Ready for use in swimming pools	≈ 3 days	
Coverage	see approximate coverage table	
W		

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e.temperature, ventilation and absorbency level of the substrate and of the materials laid.



2x2 cm 3 mm = 570 ≈ 1140 ≈ 1710 ≈ 2280 ≈ 2850 ≈ 4560 ≈ 6844 5x5 cm 4 mm ≈ 304 ≈ 608 ≈ 912 ≈ 1216 ≈ 1520 ≈ 2432 ≈ 3643 20x20 cm 14 mm ≈ 266 ≈ 532 ≈ 798 ≈ 1064 ≈ 1330 ≈ 2128 ≈ 3193 30x30 cm 10 mm ≈ 126 ≈ 253 ≈ 380 ≈ 506 ≈ 633 ≈ 1013 ≈ 1520 30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 532 ≈ 709 ≈ 886 ≈ 1418 ≈ 2124 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1144 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 463 ≈ 912 30x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 ≈ 1144 60x60 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822	Coverage table								
2x2 cm 3 mm = 570 ≈ 1140 ≈ 1710 ≈ 2280 ≈ 2850 ≈ 4560 ≈ 6844 5x5 cm 4 mm ≈ 304 ≈ 608 ≈ 912 ≈ 1216 ≈ 1520 ≈ 2432 ≈ 3644 20x20 cm 14 mm ≈ 266 ≈ 532 ≈ 798 ≈ 1064 ≈ 1330 ≈ 2128 ≈ 3192 30x30 cm 10 mm ≈ 126 ≈ 253 ≈ 380 ≈ 506 ≈ 633 ≈ 1013 ≈ 1252 30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 532 ≈ 709 ≈ 886 ≈ 1418 ≈ 2128 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1144 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 475 ≈ 760 ≈ 1144 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 ≈ 1144 60x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657	Depth	Thickness	grammes/m² joint width						
5x5 cm 4 mm ≈ 304 ≈ 608 ≈ 912 ≈ 1216 ≈ 1520 ≈ 2432 ≈ 3644 20x20 cm 14 mm ≈ 266 = 532 = 798 ≈ 1064 ≈ 1330 ≈ 2128 ≈ 3193 30x30 cm 10 mm ≈ 126 ≈ 253 ≈ 380 ≈ 506 ≈ 633 ≈ 1013 ≈ 1520 30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 532 ≈ 709 ≈ 886 ≈ 1418 ≈ 2124 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1146 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 912 30x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 ≈ 1146 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 ≈ 1142 20x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657			1 mm	2 mm	3 mm	4 mm	5 mm	8 mm	12 mm
20x20 cm 8 mm ≈ 152 ≈ 304 ≈ 456 ≈ 608 ≈ 760 ≈ 1216 ≈ 1822 20x20 cm 14 mm ≈ 266 ≈ 532 ≈ 798 ≈ 1064 ≈ 1330 ≈ 2128 ≈ 319 30x30 cm 10 mm ≈ 126 ≈ 253 ≈ 380 ≈ 506 ≈ 633 ≈ 1013 ≈ 1520 30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 552 ≈ 709 ≈ 886 ≈ 1418 ≈ 2121 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1144 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 913 30x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1140 60x60 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 197 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1422 40x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1422 40x80 cm 10 mm ≈ 17 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 852 80x80 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 177 30x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 177 30x90 cm 10 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 10x120 cm 10 mm ≈ 10 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 30x120 cm 10 mm ≈ 100 ≈ 237 ≈ 316 ≈ 228 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 30x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 120x120 cm 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	2x2 cm	3 mm	≈ 570	≈ 1140	≈ 1710	≈ 2280	≈ 2850	≈ 4560	≈ 6840
20x20 cm 14 mm ≈ 266 ≈ 532 ≈ 798 ≈ 1064 ≈ 1330 ≈ 2128 ≈ 3193 30x30 cm 10 mm ≈ 126 ≈ 253 ≈ 380 ≈ 506 ≈ 633 ≈ 1013 ≈ 1526 30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 532 ≈ 709 ≈ 886 ≈ 1418 ≈ 2128 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1146 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 913 30x60 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1146 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 1973 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1423 40x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1423 40x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 103 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2326 22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1266 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 27 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 203 10x120 cm 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 30x120 cm 10 mm ≈ 100 ≈ 218 ≈ 237 ≈ 330 ≈ 570 22x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 120x120 cm 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	5x5 cm	4 mm	≈ 304	≈ 608	≈ 912	≈ 1216	≈ 1520	≈ 2432	≈ 3648
30x30 cm 10 mm ≈ 126 ≈ 253 ≈ 380 ≈ 506 ≈ 633 ≈ 1013 ≈ 1526 30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 532 ≈ 709 ≈ 886 ≈ 1418 ≈ 2128 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1144 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 913 30x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1146 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 766 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 197 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1428 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 855 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 576 11x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1266 15x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 203 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 346 ≈ 355 ≈ 633 ≈ 950 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 346 ≈ 355 ≈ 633 ≈ 950 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 346 ≈ 355 ≈ 633 ≈ 950 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 10x120 cm 10 mm ≈ 110 ≈ 221 ≈ 334 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285	20x20 cm	8 mm	≈ 152	≈ 304	≈ 456	≈ 608	≈ 760	≈ 1216	≈ 1824
30x30 cm 14 mm ≈ 177 ≈ 354 ≈ 532 ≈ 709 ≈ 886 ≈ 1418 ≈ 2128 40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1140 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 913 30x60 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1140 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 1973 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1423 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 853 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 22,5x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 203 10x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 140 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 30x120 cm 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 60x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	20x20 cm	14 mm	≈ 266	≈ 532	≈ 798	≈ 1064	≈ 1330	≈ 2128	≈ 3192
40x40 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1140 50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 913 30x60 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1140 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 1973 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1423 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 853 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 15x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 203 100x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 203 100x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 130 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 60x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 283 120x120 cm 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	30x30 cm	10 mm	≈ 126	≈ 253	≈ 380	≈ 506	≈ 633	≈ 1013	≈ 1520
50x50 cm 10 mm ≈ 76 ≈ 152 ≈ 228 ≈ 304 ≈ 380 ≈ 608 ≈ 917 30x60 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1144 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 1972 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1422 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 852 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1266 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 5	30x30 cm	14 mm	≈ 177	≈ 354	≈ 532	≈ 709	≈ 886	≈ 1418	≈ 2128
30x60 cm 10 mm ≈ 95 ≈ 190 ≈ 285 ≈ 380 ≈ 475 ≈ 760 ≈ 1140 60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 1973 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1423 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 853 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 203 100x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 133 30x120 cm 10 mm ≈ 179 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 60x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 288 120x120 cm 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	40x40 cm	10 mm	≈ 95	≈ 190	≈ 285	≈ 380	≈ 475	≈ 760	≈ 1140
60x60 cm 10 mm ≈ 63 ≈ 126 ≈ 190 ≈ 253 ≈ 316 ≈ 506 ≈ 760 13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 197. 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 142. 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 852 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 177. 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 101. 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 635 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 20. 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 594 ≈ 886 ≈ 1330 30x120 cm 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 60x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 25 ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	50x50 cm	10 mm	≈ 76	≈ 152	≈ 228	≈ 304	≈ 380	≈ 608	≈ 912
13,5x80 cm 10 mm ≈ 164 ≈ 328 ≈ 493 ≈ 657 ≈ 822 ≈ 1315 ≈ 1975 20x80 cm 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 ≈ 1425 40x80 cm 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 855 80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1775 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 635 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 100x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 595 ≈ 633 ≈ 950 60x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 120x120 cm 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285	30x60 cm	10 mm	≈ 95	≈ 190	≈ 285	≈ 380	≈ 475	≈ 760	≈ 1140
$20x80 \text{ cm}$ 10 mm ≈ 118 ≈ 237 ≈ 356 ≈ 475 ≈ 593 ≈ 950 $\approx 142!$ $40x80 \text{ cm}$ 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 $\approx 85!$ $80x80 \text{ cm}$ 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 $11x90 \text{ cm}$ 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 $22,5x90 \text{ cm}$ 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 $15x90 \text{ cm}$ 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 $30x90 \text{ cm}$ 10 mm ≈ 844 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 $60x90 \text{ cm}$ 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 $50x100 \text{ cm}$ 3 mm ≈ 17 ≈ 34 ≈ 51	60x60 cm	10 mm	≈ 63	≈ 126	≈ 190	≈ 253	≈ 316	≈ 506	≈ 760
$40x80 \text{ cm}$ 10 mm ≈ 71 ≈ 142 ≈ 213 ≈ 285 ≈ 356 ≈ 570 ≈ 855 $80x80 \text{ cm}$ 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 $11x90 \text{ cm}$ 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2320 $22,5x90 \text{ cm}$ 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1260 $15x90 \text{ cm}$ 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1777 $30x90 \text{ cm}$ 10 mm ≈ 844 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 $60x90 \text{ cm}$ 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 $50x100 \text{ cm}$ 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 $100x100 \text{ cm}$ 3 mm ≈ 11 ≈ 22 ≈ 34	13,5x80 cm	10 mm	≈ 164	≈ 328	≈ 493	≈ 657	≈ 822	≈ 1315	≈ 1973
80x80 cm 10 mm ≈ 47 ≈ 95 ≈ 142 ≈ 190 ≈ 237 ≈ 380 ≈ 570 11x90 cm 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2326 22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1266 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1777 30x90 cm 10 mm ≈ 844 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1015 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 635 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 100x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710	20x80 cm	10 mm	≈ 118	≈ 237	≈ 356	≈ 475	≈ 593	≈ 950	≈ 1425
$11x90 \text{ cm}$ 10 mm ≈ 193 ≈ 387 ≈ 581 ≈ 775 ≈ 969 ≈ 1550 ≈ 2326 $22,5x90 \text{ cm}$ 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1266 $15x90 \text{ cm}$ 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1777 $30x90 \text{ cm}$ 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 $60x90 \text{ cm}$ 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 637 $50x100 \text{ cm}$ 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 209 $100x100 \text{ cm}$ 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 $10x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 $20x120 \text{ cm}$ 10 mm ≈ 142 ≈ 237 ≈ 316	40x80 cm	10 mm	≈ 71	≈ 142	≈ 213	≈ 285	≈ 356	≈ 570	≈ 855
22,5x90 cm 10 mm ≈ 105 ≈ 211 ≈ 316 ≈ 422 ≈ 527 ≈ 844 ≈ 1266 15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 100x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2470 15x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 142 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 30x120 cm	80x80 cm	10 mm	≈ 47	≈ 95	≈ 142	≈ 190	≈ 237	≈ 380	≈ 570
15x90 cm 10 mm ≈ 147 ≈ 295 ≈ 443 ≈ 591 ≈ 738 ≈ 1182 ≈ 1773 30x90 cm 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 60x90 cm 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 50x100 cm 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 100x100 cm 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 10x120 cm 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2470 15x120 cm 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 20x120 cm 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 30x120 cm 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950	11x90 cm	10 mm	≈ 193	≈ 387	≈ 581	≈ 775	≈ 969	≈ 1550	≈ 2326
$30x90 \text{ cm}$ 10 mm ≈ 84 ≈ 168 ≈ 253 ≈ 337 ≈ 422 ≈ 675 ≈ 1013 $60x90 \text{ cm}$ 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 633 $50x100 \text{ cm}$ 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 $100x100 \text{ cm}$ 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 $10x120 \text{ cm}$ 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2470 $15x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 $20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 <	22,5x90 cm	10 mm	≈ 105	≈ 211	≈ 316	≈ 422	≈ 527	≈ 844	≈ 1266
$60x90 \text{ cm}$ 10 mm ≈ 52 ≈ 105 ≈ 158 ≈ 211 ≈ 263 ≈ 422 ≈ 632 $50x100 \text{ cm}$ 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 $100x100 \text{ cm}$ 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 $10x120 \text{ cm}$ 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2476 $15x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1716 $20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1336 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47	15x90 cm	10 mm	≈ 147	≈ 295	≈ 443	≈ 591	≈ 738	≈ 1182	≈ 1773
$50x100 \text{ cm}$ 3 mm ≈ 17 ≈ 34 ≈ 51 ≈ 68 ≈ 85 ≈ 136 ≈ 205 $100x100 \text{ cm}$ 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 $10x120 \text{ cm}$ 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2470 $15x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 $20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	30x90 cm	10 mm	≈ 84	≈ 168	≈ 253	≈ 337	≈ 422	≈ 675	≈ 1013
$100x100 \text{ cm}$ 3 mm ≈ 11 ≈ 22 ≈ 34 ≈ 45 ≈ 57 ≈ 91 ≈ 136 $10x120 \text{ cm}$ 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2476 $15x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1716 $20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1336 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	60x90 cm	10 mm	≈ 52	≈ 105	≈ 158	≈ 211	≈ 263	≈ 422	≈ 633
$10x120 \text{ cm}$ 10 mm ≈ 205 ≈ 411 ≈ 617 ≈ 823 ≈ 1029 ≈ 1646 ≈ 2470 $15x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 $20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	50x100 cm	3 mm	≈ 17	≈ 34	≈ 51	≈ 68	≈ 85	≈ 136	≈ 205
$15x120 \text{ cm}$ 10 mm ≈ 142 ≈ 285 ≈ 427 ≈ 570 ≈ 712 ≈ 1140 ≈ 1710 $20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	100x100 cm	3 mm	≈ 11	≈ 22	≈ 34	≈ 45	≈ 57	≈ 91	≈ 136
$20x120 \text{ cm}$ 10 mm ≈ 110 ≈ 221 ≈ 332 ≈ 443 ≈ 554 ≈ 886 ≈ 1330 $30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	10x120 cm	10 mm	≈ 205	≈ 411	≈ 617	≈ 823	≈ 1029	≈ 1646	≈ 2470
$30x120 \text{ cm}$ 10 mm ≈ 79 ≈ 158 ≈ 237 ≈ 316 ≈ 395 ≈ 633 ≈ 950 $60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	15x120 cm	10 mm	≈ 142	≈ 285	≈ 427	≈ 570	≈ 712	≈ 1140	≈ 1710
$60x120 \text{ cm}$ 5 mm ≈ 23 ≈ 47 ≈ 71 ≈ 95 ≈ 118 ≈ 190 ≈ 285 $120x120 \text{ cm}$ 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	20x120 cm	10 mm	≈ 110	≈ 221	≈ 332	≈ 443	≈ 554	≈ 886	≈ 1330
120x120 cm 5 mm ≈ 15 ≈ 31 ≈ 47 ≈ 63 ≈ 79 ≈ 126 ≈ 190	30x120 cm	10 mm	≈ 79	≈ 158	≈ 237	≈ 316	≈ 395	≈ 633	≈ 950
	60x120 cm	5 mm	≈ 23	≈ 47	≈ 71	≈ 95	≈ 118	≈ 190	≈ 285
100x300 cm 3 mm ≈ 7 ≈ 15 ≈ 22 ≈ 30 ≈ 38 ≈ 60 ≈ 95	120x120 cm	5 mm	≈ 15	≈ 31	≈ 47	≈ 63	≈ 79	≈ 126	≈ 190
	100x300 cm	3 mm	≈ 7	≈ 15	≈ 22	≈ 30	≈ 38	≈ 60	≈ 91

The data provided must be considered merely as an indication of the grout coverage, averaged out based on our experience and taking into account normal site wastage. The following may vary according to specific conditions at the building site: roughness of tile, excess of residual product, lack of surface flatness, temperatures, seasonal conditions.



Performance					
VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions					
Conformity	EC 1 GEV-Emicode	GEV certified 9522/11.01.02			
HIGH-TECH					
Flexural strength after 28 days	≥ 2.5 N/mm ²	EN 12808-3			
Compressive strength after 24 hrs	≥ 15 N/mm ²	ISO 13007-4.1.4			
Compressive strength after 28 days	≥ 15 N/mm ²	ISO 13007-4.1.4			
Resistance to frost-thaw cycles:					
- flexural	≥ 2,5 N/mm ²	EN 12808-3			
- compressive	≥ 15 N/mm ²	EN 12808-3			
Resistance to abrasion after 28 days	≤ 1000 mm³	EN 12808-2			
Water absorption after 30 min.	≤ 2 g	EN 12808-5			
Water absorption after 240 min.	≤5 g	EN 12808-5			
Colour Fastness	see colour chart	UNI EN ISO 105-A06			
Resistance to fungal contamination	class F+	CSTB SB-2018-144			
Resistance to bacterial contamination	class B+	CSTB SB-2018-142			
Application temperature range	from -40 °C to +90 °C				
Conformity	CG2 WA	ISO 13007-3			

 $Values\ taken\ at\ +23\ ^{\circ}\!C,\ 50\%\ R.H.\ and\ no\ ventilation.\ Data\ may\ vary\ depending\ on\ specific\ conditions\ at\ the\ building\ site.$

Kerakoli Fugabella® Color Code: P1091 2019/07 GCC/EN

Warning

- → Product for professional use
- → in swimming pools, check the suitability of the product based on the type of water and the type of chemical or physical treatment used
- → grout shades are not reproducible and may even vary during application, as a result of application techniques and ambient conditions during and immediately after the grout has been applied
- → workability times may vary considerably, depending on environmental conditions and on tile and substrate absorbency
- → protect the grout from direct rainfall and sun for at least 12 hours after application
- \rightarrow in warm climates cool the surface and mix the grout with cold water
- → grouting joints on substrates that are still damp will cause variations in the grout
- → if necessary, ask for the safety data sheet
- → for any other issues, contact the Kerakoll Worldwide Global Service info@kerakoll.ae

The Rating classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in June 2019 (ref. GBR Data Report - 07.19); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see www.kerakoll.com. KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical appractical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.

Dreamed by Info Go green