



## STARLIKE® COLOR CRYSTAL

**TWO-COMPONENT COLOURED ACID RESISTANT TRANSLUCENT EPOXY MORTAR FOR THE GROUTING OF ALL TYPES OF GLASS MOSAICS WITH JOINTS OF UP TO 2 mm IN WIDTH**



**New patented formulation resistant to UV and the weather-climate, in collaboration with the University of Modena and Reggio Emilia**

### DESCRIPTION

Part A consists of a mixture of epoxy resin, fine particle sized glass-bead based aggregate and rheological components of organic nature. Part B consists of a mixture of amine-based hardeners.

The main features of the product are:

- A translucent colour that allows light filtration.
- A smooth finish thanks to the fine particle sized aggregates.
- Extremely simple application and cleaning.
- High mechanical resistance.
- It does not absorb.
- Absolutely no cracks or crazing after hardening.
- Excellent chemical resistance
- Suitable product for direct contact with food in accordance with Min. Decree of 21.03.1973 (a copy of the certificate can be requested from the Litokol Technical Department).

### EN 13888 CLASSIFICATION:

Class RG - Reactive sealant for joints

### Packages

2.5 kg plastic bucket 437.5 kg EUR pallet

### FIELDS OF APPLICATION

While Starlike® Crystal is used exclusively for grouting transparent and artistic glass mosaics, with Starlike® ColorCrystal it is possible, after identifying the most suitable colour combination, to achieve "tone on tone" grouting even in the case of non-transparent mosaics, further enhancing the mosaic itself.

The colour range of Starlike® Color Crystal was designed in order to be adaptable to a wide range of mosaics.

In the case of conventional substrates such as cementitious plasters or gypsum-based, panelling, etc., the mosaics must be glued with Litoplus K55 type of white adhesives (class C2TE cementitious adhesive) or Litoelastic (class R2T two-component reactive adhesive) depending on the type of substrate.

Thanks to this feature, Starlike® ColorCrystal allows glass mosaic substrates to be achieved with a significant effect of quality and visual impact such as:

- Floors and tiles in bathrooms, showers, etc.
  - Grouting back painted glass mosaic or made of different materials, such as glass and ceramic.
  - Construction of furnishing surfaces such as columns, tables, etc.
- In the case of transparent glass mosaics, it is possible to create backlit internal walls consisting of transparent substrates in glass or Plexiglas. In this case, fixing will be done with a suitable transparent cartridge adhesive.

### PHASES OF APPLICATION

#### Preliminary checks and preparation of joints

Make sure that the adhesive used for bonding the mosaic is fully hardened and dry.

The joints must be completely dry, clean, free of dust and the thickness of the mosaic must be empty in order to guarantee a product translucent effect.

It is recommended to use a spatula with small 2 mm triangular teeth for bonding (Art. 121/D-V 2).

#### Mixing proportions

Component A: 100 parts in weight

Component B: 8.3 parts in weight

The two components are pre-dosed each in their own packaging.

#### Preparation of the mix

Cut a corner of the bag containing the catalyst (component B) inside the bucket and pour it on component A (paste). We recommend you pour the entire contents of the catalyst, rolling and squeezing progressively from the sealed side of the bag to the cut side. Mix with the electric drill fitted with a paddle, from the bottom upwards and downwards for a number of revs until an even lump-free mixture is obtained.

With a spatula or trowel, scrape the walls and base of the bucket to avoid any parts of non-catalysed product remnants. It is not recommended to mix by hand.

The packages of the 2 components are previously dosed so as to avoid any mixing errors. The mixture obtained can be worked for approximately 1 hour at approximately +23°C.

#### Grouting of mosaic surfaces

Introduce the mixture into the joints using the special green rubber trowel (Art. 946/GR). In the case of wall application, it is recommended that the sealant is applied in complete vertical strips before cleaning.

Remove excess product with the same rubber trowel. The material must be introduced in the joints before cleaning with water so as to prevent the formation of white crystals on the surface.

The pot life and hardening of the product is significantly affected by the environmental temperature. The optimum temperature for application is between +18 and +23°C.

Under these conditions the product is an easily workable smooth mortar with a mixture life of about 1 hour. The surface can be walked on after 24 hours. At a temperature of +15°C you must wait three days before walking on it. At temperatures between +8 and

+12°C the product is more consistent and more difficult to apply. The hardening time is significantly extended.

It is recommended not to add water or solvents to improve workability. At higher temperatures it is recommended to apply the product as quickly as possible on the substrate in order not to shorten the mixture time further due to the reaction heat in the package.

### **CLEANING AND FINISHING**

Cleaning and finishing of the grouting should be carried out when the product is still fresh, and in any case as soon as possible, taking care not to empty the joints and without leaving product streaks on the surface of the mosaics.

Perform an initial cleaning using the trowel equipped with moistened white felt (Art. 109/G) using a lesser amount of water and using circular movements both clockwise and anticlockwise, in order to seal perfectly the sides of the mosaic tiles and to remove the excess sealant from the surface. During this phase it is important to avoid water stagnation by promptly intervening with a tightly squeezed rigid sweepex sponge (Art. 128/G). This second cleaning is indispensable in order to obtain a smooth, closed surface, completely removing the product from the mosaic surfaces without removing it from the joints, and drying the excess water. During this phase, prevent the water from entering the joints that are still empty, interrupting the cleaning process a few centimetres before the empty joints.

If holes or imperfections are noted, it is recommended to restore these when the surface is dry and the product has hardened.

When the felt and sponge are full of resin and can no longer be cleaned, they must be replaced.

Any streaks or residues of transparent product can be removed from the mosaic surface after about 24 hours or after the hardening of the joint (depending on the temperature), using the specific cleaning products - Litonet (flooring) and Litonet Gel (claddings). Read the relative technical data sheet for correct use.

### **USING LITONET AND LITONET GEL TO REMOVE STREAKS**

Apply LITONET or LITONET GEL on the surface that is to be cleaned with the white felt (Art. 109/G). Let the product stand for about 15-30 minutes. Then rub the surface with the white felt.

Rinse with clean water and immediately dry with a clean dry cloth. Do not wait for the rinse water to evaporate as streaks would reform on the mosaic surface.

### **WARNINGS**

- The product can only be applied to grout glass mosaic with joints that are no wider than 2 mm.
  - Apply at temperatures between +12°C and +30°C.
- Avoid applying in low temperatures and high environmental

humidity in order to prevent the formation of superficial carbonation that could alter colour uniformity.

- Prevent the water from entering the joints that are still empty while cleaning, interrupting the cleaning process a few centimetres before the empty joints.
- The material must be introduced in the joints before cleaning with water. If holes or imperfections are noted after cleaning, these should be promptly restored when the surface has dried and the product has hardened.
- Avoid rising adhesive in the thickness of the joint as this interferes with the end colour. Even discontinuity in the application of the adhesive can be noted when the grouting is completed.
- Make sure that the equipment used and the mosaic that is to be sealed are cleaned. Any colour interference is noted since it is a translucent product.
- Promptly remove the excess product from the mosaic surface as it can only be removed mechanically once it hardens, which poses high risks for the end result.
- Mix the two components (A+B) correctly.
- Change the rinse water frequently.
- Change the felt and sponge when saturated with product.
- Do not step on the freshly grouted surface so as to prevent damaging the floor with the resin residue.
- Do not cover the surface that has just been grouted with sheets or other material so as to prevent the formation of condensation which would cause superficial product carbonation, thereby altering colour uniformity. Wait at least 24-48 hours before protecting the surface, depending on the temperature.
- The product cannot be used to grout tanks containing aggressive substances which are only allowed for intermittent contact (see the chemical resistance table shown in the technical data sheet).
- Do not mix the product with water or solvents.

### **CONSUMPTION**

1 kg/m<sup>2</sup> for mosaics 20x20 mm thickness 3 mm (joint = 2 mm)  
2 kg/m<sup>2</sup> for mosaics 10x10 mm thickness 3 mm (joint = 2 mm)

### **INFORMATION ON SAFETY**

See product material safety data sheets, available on request.

### **PRODUCT FOR PROFESSIONAL USE.**

### **SPECIFICATIONS**

The decorative grouting of the joints between glass mosaics, generally applied to the floor or wall indoors or outdoors must be applied with translucent two-component acid resistant epoxy mortar such as Starlike® ColorCrystal of Litokol Spa. The grouting will be smooth and compact, with no cracks, non-absorbent, uniform in colour, UV resistant and weatherproof.

## IDENTIFICATION DATA

Appearance	<b>Component A:</b> translucent paste <b>Component B:</b> thick liquid
Colours	Rosso Pompei C.351, Verde Capri C.352, Azzurro Taormina C.353, Beige Havana C.354, Rosa Kyoto C.355
Custom classification	35069190
Storage time	24 months inside the original packaging, in a dry place

## APPLICATION DATA

Recommended adhesives to apply mosaics	<b>Substrates made of cement, gypsum-based, old tiles:</b> LitoPlus K55 <b>Wood, metal, fibreglass panelling:</b> Litoelastic <b>Plexiglas:</b> Primer 1217 + OTTOCOL M501 transparent <b>Glass:</b> OTTOCOL M501 transparent
Recommended trowel	Small notched trowel 2 mm triangular teeth (Art. 112/D - V 2)
Waiting time before grouting	24 hours
Mixing proportion	<b>Component A:</b> 100 parts in weight - <b>Component B:</b> 8.3 parts in weight The two components are pre-dosed each in their own packaging
Consistency of the mix	mushy
Specific weight of the mixture	1.55 kg/l
Mixture life	Approx. 1 hour at T=+23°C
Application temperatures	Allowed: from +12°C to +30°C - Recommended: from +18°C to +23°C
Can be stepped on	24 hours at T=+23°C
Fully usable after	5 days at T=+23°C
Width of the joints	Up to 2 mm

## PERFORMANCE

Abrasion resistance (EN 12808-2)	≤ 250 mm <sup>3</sup>
Mechanical resistance to bending after 28 days in standard conditions (EN 12808-3)	≥ 30 N/mm <sup>2</sup>
Mechanical resistance to compression after 28 days in standard conditions (EN 12808-3)	≥ 45 N/mm <sup>2</sup>
Shrinkage (EN 12808-4)	≤ 1.5 mm/m
Water absorption after 4 hours (EN 12808-5)	≤ 0.1 g
Temperature of use	From -20°C to +100°C

## TABLE OF THE CHEMICAL RESISTANCES

(The table shown is a summary of the chemical resistance tests carried out according to EN 12808-1)

CHEMICAL RESISTANCE OF CLADDINGS GROUTED WITH STARLIKE® COLOR CRYSTAL

Group	Name	Conc. %	Continuous service				Intermittent service
			24 hours	7 days	14 days	28 days	
Acids	Acetic acid	2.5	●	●	●	●	●
		5	●	●	●	●	●
	Hydrochloric acid	37	●	●	●	●	●
	Citric acid	10	●	●	●	●	●
	Lactic acid	2.5	●	●	●	●	●
		5	●	●	●	●	●
		10	●	●	●	●	●
	Nitric acid	25	●	●	●	●	●
		50	●	●	●	●	●
	Pure oleic acid	-	●	●	●	●	●
	Sulfuric acid	1.5	●	●	●	●	●
		50	●	●	●	●	●
96		●	●	●	●	●	
Acido tannico	10	●	●	●	●	●	
Tartaric acid	10	●	●	●	●	●	
Oxalic acid	10	●	●	●	●	●	
Alkali	Ammonia solution	25	●	●	●	●	●
	Caustic soda	50	●	●	●	●	●
	Sodium hypochlorite solution Conc. Active Cl	>10	●	●	●	●	●
		50	●	●	●	●	●
	Caustic potash	50	●	●	●	●	●
	Sodium bisulfite	10	●	●	●	●	●
Saturated solutions at 20°C	Thiosulphate sodium		●	●	●	●	●
	Calcium chloride		●	●	●	●	●
	Sodium chloride		●	●	●	●	●
	Iron chloride		●	●	●	●	●
	Sugar		●	●	●	●	●
Oils and fuels	Gasoline, fuel		●	●	●	●	●
	Turpentine		●	●	●	●	●
	Diesel		●	●	●	●	●
	Extra virgin olive oil		●	●	●	●	●
	Lubricant oil		●	●	●	●	●
Solvents	Acetone		●	●	●	●	●
	Ethylene glycol		●	●	●	●	●
	Glycerin		●	●	●	●	●
	Ethyl alcohol		●	●	●	●	●
	Benzine		●	●	●	●	●
	Oxygenated water	10	●	●	●	●	●
25		●	●	●	●	●	

### KEY

- EXCELLENT RESISTANCE
- GOOD RESISTANCE
- LOW RESISTANCE

Although the information in this technical chart is from our best experience, it is merely indicative.

Each specific case must be subjected to practical preliminary tests by the user who undertakes the responsibility for the final work result.

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