





## >breathe safe air





Zherorisk® is a research initiative by Litokol's R&D division with the participation of the University of Modena and Reggio Emilia, the DICAM (Department of Civil, Chemical, Environmental, and Materials Engineering) of Bologna and external research institutes, on raw materials and ways of combining them, aimed at developing an innovative generation of environmentally-friendly building products with "zero risks".

#### Zero risk for the user



✓ Given that most VOC emission occurs during application, the use of products with ultra-low VOC emission increases the safety of professional users; the lack of pungent and unpleasant odours makes the workplace much more comfortable.



- / Non corrosive
- Non toxic
- ✓ Non-hazardous to the environment



#### Zero risk for the environment





- ✓ Lower energy consumption
- ✓ Lower CO₂ emissions
- ✓ Reduced consumption of basic materials



#### Zero risk for homes



Very low VOC emissions: safeguarding the quality of air in homes and the health of those who live there.

#### Zero risk in transportation



- Product not subject to restrictions for road, sea, air and rail transport
- ✓ No ADR restrictions for road transport
- ✓ No IMO containers for transport by sea

#### Certifications



#### EC1 PLUS

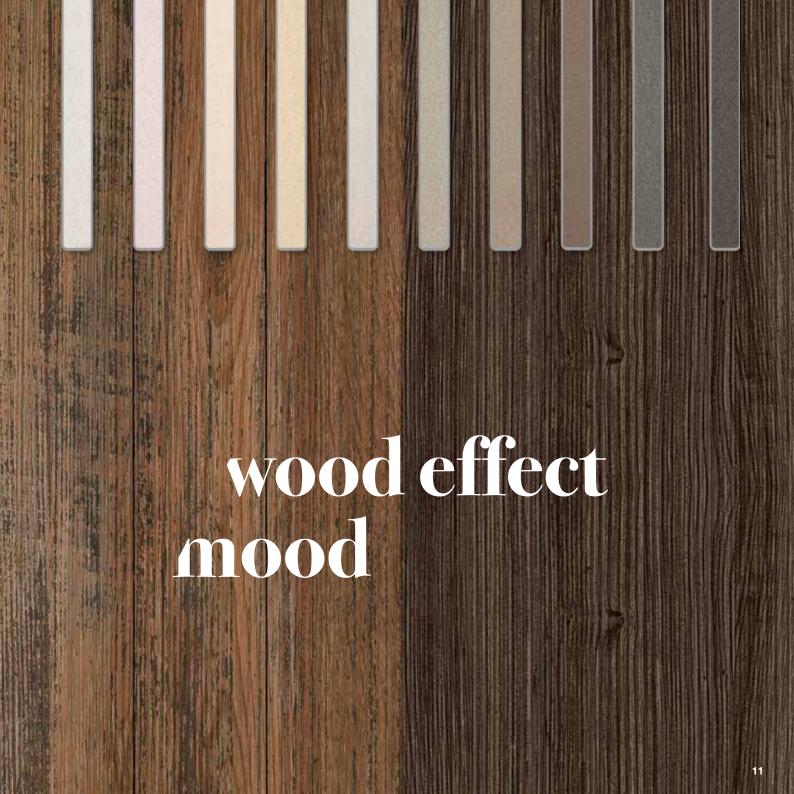
Litokol products with Zherorisk® technology come with EMICODE EC1 PLUS certification and labelling, for "products with a very low volatile organic compound emission rate" in compliance with the guidelines issued by GEV (association for the control of building material emissions), with much lower values than the limit values.



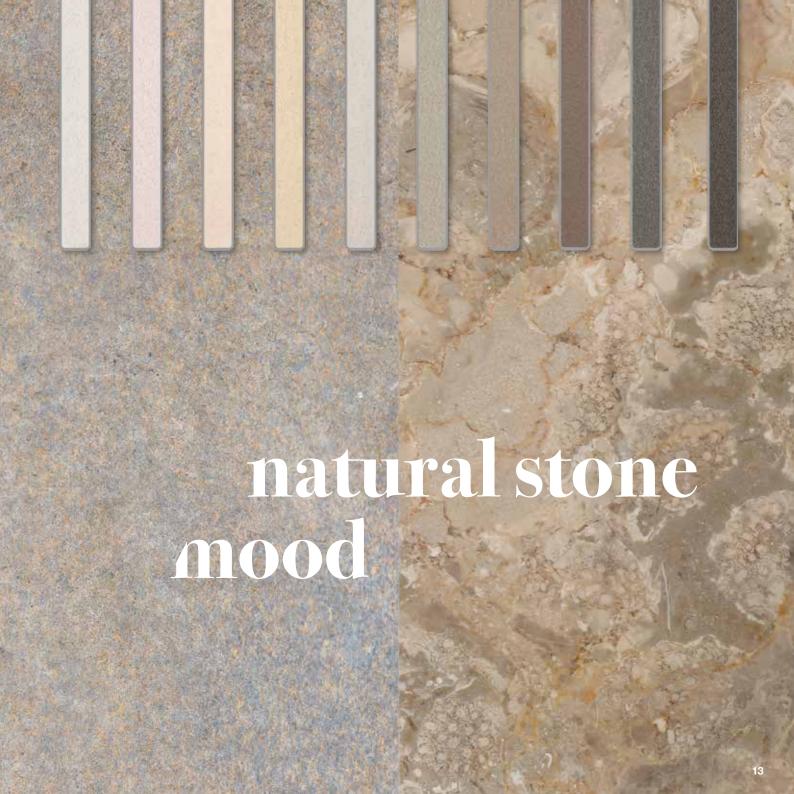
#### Émission dans l'air intérieur

"Émission dans l'air intérieur" is the mandatory labelling of building products or wall and floor covering products used in buildings, in accordance with the French regulation on the characteristics of volatile pollution emissions (VOC) for the product. The product emission level is indicated by a class ranging from A+ (very low emissions) to C (high emissions), according to the same principle used for electrical appliances.

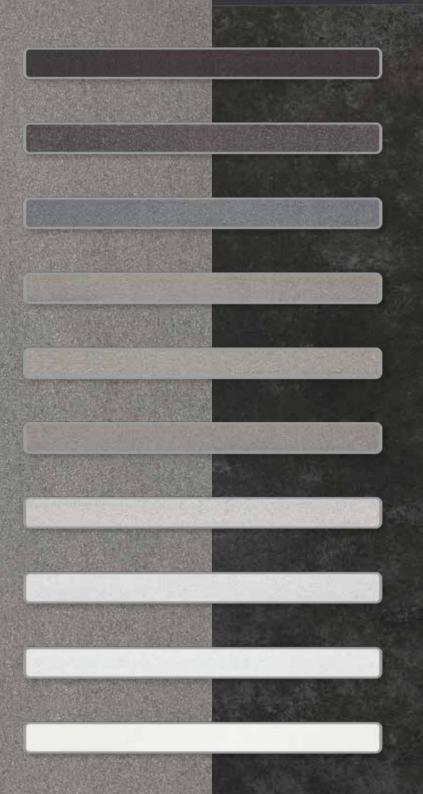




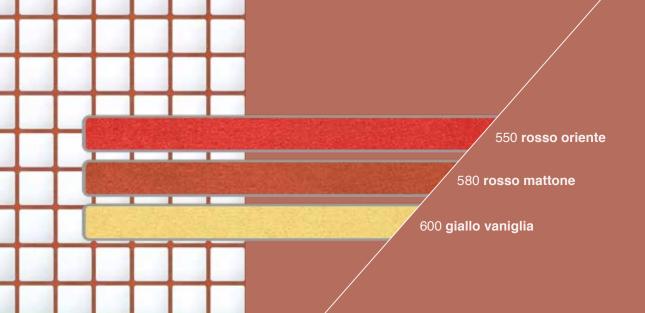




# cement effect mood







## > spotlight on grouts









## >Over 150 finishes



to adapt to any shade of grey

100 Bianco Assoluto

102 Bianco Ghiaccio

105 Bianco Titanio

110 Grigio Perla

115 Grigio Seta



120 Grigio Piombo



125 Grigio Cemento



130 Grigio Ardesia



140 Nero Grafite



145 Nero Carbonio



gradual transition through 10 warm shades, all carefully balanced

200 Avorio

202 Naturale

205 Travertino



208 Sabbia



210 Greige



215 Tortora



225 Tabacco



230 Cacao



232 Cuoio



235 Caffè

The glitter finishes **Galaxy** (pearl effect), **Spotlight** (silver glitter) and **Gold** (gold glitter) mixed in as the third component to Starlike® EVO (Class and Glam Collection), allow you to obtain grouting with one-of-a-kind and exclusive effects.





#### 15 on-trend colours and sophisticated colour combinations

<b>300</b> Azzurro Pastello	400 Verde Salvia	<b>500</b> Rosa Cipria
310 Azzurro Polvere	410 Verde Smeraldo	530 Viola Ametista
<b>320</b> Azzurro Caraibi	420 Verde Prato	550 Rosso Oriente
330 Blu Avio	430 Verde Pino	580 Rosso Mattone
<b>340</b> Blu Denim		600 Giallo Vaniglia

350 Blu Zaffiro



#### Starlike® EVO Metallic Collection

With the Platinum, Shining Gold, Bronze, Copper and Rusty additives mixed in as the third component to Starlike® EVO Neutro 113, top-quality joints are obtained to match ceramic tiles or mosaics with metallic effects and colours.

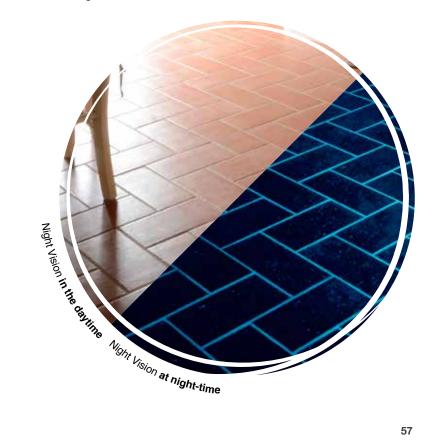


#### Starlike® EVO Night Vision

The Night Vision additive mixed in as the third component to Starlike® EVO allows you to obtain grouting which, after being exposed to sunlight or artificial light, emanates an amazing fluorescent colour for several hours after dark. The Night Vision additive, for indoor-use only, illuminates the joints with its spectacular and eye-catching effect.



Night Vision

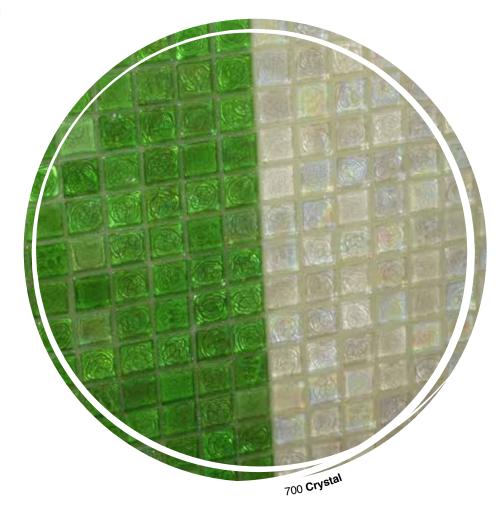


#### Starlike® Crystal EVO

Based on aggregate made from glass beads, Starlike<sup>®</sup> Crystal EVO is the perfect solution for grouting transparent and artistic glass mosaics. The translucent joint absorbs the colour of the transparent glass mosaics and takes on the same colour. This property makes Starlike<sup>®</sup> Crystal EVO the ideal grout for transparent glass mosaics with joints up to 3 mm in width. Thanks to its neutral colour and semi-transparent appearance, Starlike<sup>®</sup> Crystal EVO is also the recommended solution for artistic mosaics because it does not change the colours of the composition or interfere with the image.



700 Crystal



#### Starlike® ColorCrystal EVO

While Starlike<sup>®</sup> Crystal EVO is used exclusively for grouting transparent or artistic glass mosaics, with Starlike<sup>®</sup> ColorCrystal EVO it is possible to achieve tone-on-tone grouting for mosaics that are not completely transparent or consist of both transparent and opaque tiles, which are difficult to harmonise with traditional grout. The Starlike<sup>®</sup> ColorCrystal EVO colours have been designed to adapt to decorative situations featuring a combination of different materials.



800 Grigio Oslo



810 Verde Capri



820 Azzurro Taormina



825 Beige Havana



830 Rosa Kyoto



STARLIKE® EVO	GALAXY	SPOTLIGHT	GOLD	OTTOSEAL®	STARLIKE® EVO	GALAXY	SPOTLIGHT	GOLD	OTTOSEAL®
Z				S105 C01	Z				S100 C753
100 Bianco assoluto	100 Bianco assoluto	100 Bianco assoluto	100 Bianco assoluto		300 Azzurro Pastello	300 Azzurro Pastello	300 Azzurro Pastello	300 Azzurro Pastello	
				S105 C116					S105 FN2674
102 Bianco Ghiaccio	102 Bianco Ghiaccio	102 Bianco Ghiaccio	102 Bianco Ghiaccio	\$105 C71	310 Azzurro Polvere	310 Azzurro Polvere	310 Azzurro Polvere	310 Azzurro Polvere	\$105 FN2682
105 Bianco Titanio	105 Bianco Titanio	105 Bianco Titanio	105 Bianco Titanio	3103 071	320 Azzurro Caraibi	320 Azzurro Caraibi	320 Azzurro Caraibi	320 Azzurro Caraibi	3103 FN2062
				S105 C43	<u>e</u>				\$105 FN2681
110 Grigio Perla	110 Grigio Perla	110 Grigio Perla	110 Grigio Perla		330 Blu Avio	330 Blu Avio	330 Blu Avio	330 Blu Avio	
				\$100 C1170					S100 C25
115 Grigio Seta	115 Grigio Seta	115 Grigio Seta	115 Grigio Seta		340 Blu Denim	340 Blu Denim	340 Blu Denim	340 Blu Denim	
120 Criaio Diambo	120 Crigio Diambo	120 Crigio Diambo	120 Crigio Diambo	S105 C02	250 Plu Zoffiro	250 Plu Zoffiro	250 Plu Zoffiro	250 Plu Zoffiro	S105 FN2678
120 Grigio Piombo	120 Grigio Piombo	120 Grigio Piombo	120 Grigio Piombo	S105 C1168	350 Blu Zaffiro	350 Blu Zaffiro	350 Blu Zaffiro	350 Blu Zaffiro	S100 C91
125 Grigio Cemento	125 Grigio Cemento	125 Grigio Cemento	125 Grigio Cemento		400 Verde Salvia	400 Verde Salvia	400 Verde Salvia	400 Verde Salvia	
				S100 C808					S105 FN2680
130 Grigio Ardesia	130 Grigio Ardesia	130 Grigio Ardesia	130 Grigio Ardesia		410 Verde Smeraldo	410 Verde Smeraldo	410 Verde Smeraldo	410 Verde Smeraldo	
				S100 C5176					S105 FN2679
135 Nero Grafite	135 Nero Grafite	135 Nero Grafite	135 Nero Grafite	\$105 CO4	420 Verde Prato	420 Verde Prato	420 Verde Prato	420 Verde Prato	\$100 C6854
140 Nero Carbonio	140 Nero Carbonio	140 Nero Carbonio	140 Nero Carbonio	3103 004	430 Verde Pino	430 Verde Pino	430 Verde Pino	430 Verde Pino	3100 00034
Z				S100 C51					\$100 C74
200 Avorio	200 Avorio	200 Avorio	200 Avorio		500 Rosa Cipria	500 Rosa Cipria	500 Rosa Cipria	500 Rosa Cipria	
				S105 C84					S105 FN2673
202 Naturale	202 Naturale	202 Naturale	202 Naturale	2000	530 Viola Ametista	530 Viola Ametista	530 Viola Ametista	530 Viola Ametista	
205 Travertino	205 Travertino	205 Travertino	205 Travertino	S100 C103	550 Rosso Oriente	550 Rosso Oriente	550 Rosso Oriente	550 Rosso Oriente	S100 C35
	203 Haveruno	200 Haveruno	203 Haveruno	S100 C55	330 Nosso Offerite	330 NOSSO OTIETILE	330 hosso offerite	330 Nosso Offerite	\$100 C2288
208 Sabbia	208 Sabbia	208 Sabbia	208 Sabbia		580 Rosso Mattone	580 Rosso Mattone	580 Rosso Mattone	580 Rosso Mattone	
	Draw County of the			S105 C77					S105 FN2672
210 Greige	210 Greige	210 Greige	210 Greige		600 Giallo Vaniglia	600 Giallo Vaniglia	600 Giallo Vaniglia	600 Giallo Vaniglia	
				\$105 C2044					
215 Tortora	215 Tortora	215 Tortora	215 Tortora	\$100 C6778	7	STARLIKE® EVO Neutro + <b>Platinum</b>	C100 C14		
225 Tabacco	225 Tabacco	225 Tabacco	225 Tabacco	3100 00770	OIIO		S100 C14		
				\$100 C6777	OLLE	STARLIKE® EVO Neutro + Shining Gold	S100 C19		
230 Cacao	230 Cacao	230 Cacao	230 Cacao		Ű	STARLIKE® EVO Neutro + <b>Bronze</b>	S100 C15		
				S100 C6776	lic	STARLIKE® EVO Neutro + <b>Copper</b>	S100 C05		
232 Cuoio	232 Cuoio	232 Cuoio	232 Cuoio		Metallic				
005.0 (())	005 0.40	005 0 (0)	005 0 (1)	\$100 C21		STARLIKE® EVO Neutro + Rusty	S100 C2288		
235 Caffè	235 Caffè	235 Caffè	235 Caffè						



## Starlike® EVO is the only product in the world that can be used in 3 different ways:



1 - epoxy filler for joints;



2 - class R2T adhesive (improved reactive adhesive with no vertical slip);



**3** - decorative **finish** for walls (with Decor additive).

Starlike® EVO is a two-component, acid-resistant epoxy grout for laying and grouting ceramic tiles and mosaics with joints between 1 and 15 mm in width. It is extremely easy to apply and clean and is ideal for direct contact with foodstuffs.

As an adhesive, it is particularly recommended in the case of installation of thin mosaic. As a smoother, it creates unique decorative solutions, smoothing the walls with the same colour as the grouting.



#### Identification data

**Appearance** Component A: thick coloured paste

Component B: thick liquid

#### Classification according to EN 13888:

RG - reactive grout sealant

#### Classification according to EN 12004:

R2T - high-performance reactive adhesive and no vertical slip

#### Customs code:

35069190

#### Storage:

24 months in original packaging in a dry place.

#### **Application data**

#### Time before grouting floor application:

• with normal-setting adhesive: 24 hours

with fast-setting adhesive: 4 hours

• with mortar: 7-10 days

#### Wall application

• with normal-setting adhesive: 24 hours

• with fast-setting adhesive: 4 hours

• with mortar: 2-3 days

#### Mixing ratios:

Component A: 93.7 parts by weight Component B: 6.3 parts by weight

The two components are pre-measured in their respec-

tive packaging

Mix consistency: Thixotropic paste

Specific gravity of mix

1.55 kg/l

#### Mixture life:

About 1 hour at  $T = +23^{\circ}C$ 

Application temperatures allowed:

From +10°C to +30°C

Recommended application temperature:

From +18°C to +23°C

Set to light foot traffic:

24 hours at  $T = +23^{\circ}C$ 

Ready for use:

5 days at T = +23°C

Joint width:

From 1 to 15 mm

































#### **Performance**

Initial shear adhesion strength (EN 12003): ≥ 2 N/mm<sup>2</sup>

Shear adhesion strength after water immersion (EN 12003):

> 2 N/mm<sup>2</sup>

Shear adhesion strength after thermal shock (EN 12003):  $\geq 2$ N/mm<sup>2</sup>

Open time (EN 1346):  $\geq 0.5 \text{ N/mm}^2$  after 20 minutes

**Determination of slip (EN 1308):**  $\leq 0.5 \text{ mm}$ 

Resistance to abrasion (EN 12808-2): ≤ 250 mm<sup>3</sup>

Flexural tensile strength after 28 days

at standard conditions (EN 12808-3): ≥ 30 N/mm<sup>2</sup>

Compressive strength after 28 days

at standard conditions (EN 12808-3):  $\geq 45 \text{ N/mm}^2$ 

**Shrinkage (EN 12808-4):**  $\leq 1.5 \text{ mm}$ 

Water absorption after 4 hours (EN 12808-5):  $\leq 0.1 \text{ g}$ 

Working temperature: From - 20°C to +100°C









## > the benefits of Starlike EVO



BEAUTY AND STRENGTH IN ALL RESIDENTIAL SETTINGS



GROUTING THAT IS RESISTANT TO THE MOST EXTREME INDUSTRIAL APPLICATIONS



FOR PUBLIC AND
COMMERCIAL FLOORS WITH
HEAVY FOOTFALL



WATERPROOF JOINT: STAIN AND DIRT PROOF



GROUTING IN DIRECT CONTRACT WITH CHEMICAL OR AGGRESSIVE SUBSTANCES



EASY-TO-CLEAN JOINTS THAT DO NOT ABSORB LIQUIDS AND STAINS



EASY-TO-CLEAN EVEN FOR APPLICATIONS ON VERY ROUGH R12 TILES



RESISTANT TO UV RAYS





IDEAL FOR CONTACT WITH FOODSTUFFS

## > Packaging





























Packaging	1kg	2,5 kg	5 kg
Starlike® EVO Class Cold Collection	<b>√</b> *	✓	✓
Starlike® EVO Class Warm Collection	<b>/</b> **	<b>✓</b>	✓

(\*) 100 Bianco Assoluto - 110 Grigio Perla - 125 Grigio Cemento - 140 Nero Grafite

(\*\*) 205 Travertino - 210 Greige - 225 Tabacco - 230 Cacao





















5 kg	5 kg*

Packaging	ing	2,5 kg	5 kg*
Starlike® EVO Glam Collection		✓	<b>√</b>

(\*) 300 Azzurro Pastello - 310 Azzurro Polvere - 320 Azzurro Caraibi - 330 Blu Avio - 340 Blu Denim 350 Blu Zaffiro - 400 Verde Salvia - 430 Verde Pino









Packaging	1kg	2,5 kg	5 kg
Starlike® EVO Finishes	✓	✓	1

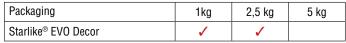






















Packaging	1kg	2,5 kg	5 kg
Starlike® EVO Finishes		✓	1















Packaging	1kg	2,5 kg	5 kg
Starlike® EVO Decor		<b>✓</b>	

### Special



















Packaging	1kg	2,5 kg	5 kg
Starlike® EVO - 113 Neutro		<b>✓</b>	✓















Packaging	1kg	2,5 kg	5 kg
Starlike® Crystal EVO	<b>✓</b>	<b>√</b>	<b>✓</b>











Starlike® Color Crystal EVO







1kg





Packaging	1kg	2,5 kg	5 kg
Starlike® EVO Metallic Collection Platinum, Shining Gold, Bronze, Copper, Rusty		<b>✓</b>	<b>✓</b>









Packaging	1kg	2,5 kg	5 kg
Starlike® EVO Decor		✓	



Packaging













#### **Application phases:**



Empty the entire contents of the catalyst (B) onto the paste (A).





Special finishes: pour the additive onto the paste and mix slowly.



Mix using an electric drill fitted with a mixing paddle. Scrape the sides of the bucket to eliminate all parts of non-catalysed product.



The joints must be dry. Apply the paste in the joints using a green rubber float (art. 946GR), with diagonal movements in the direction of the joints. Remove the excess product.





The grout must be cleaned while the product is still wet. Sprinkle clean water. Clean initially using a moistened white felt pad (art. 109/GBNC) making circular movements. Ensure no water enters the joints.



Clean a second time with a sweepex sponge (art. 128G0001).





Any stains of the transparent product can be removed after 24 hours or, in any case, after the joint has hardened. Use Litonet EVO (floors) and Litonet Gel EVO (walls). Spread Litonet EVO or Litonet Gel EVO with the white felt pad.



Leave on for 15-30 minutes. Rub the surface with the white felt pad.



Rinse with clean water. Dry immediately with a clean cloth and do not wait for the rinse water to evaporate.

#### You may also need:













For correct use and further information. consult the technical and safety data sheets on www.litokol.it