

WITH
FINE-GRAIN
QUARTZ
SPHERES

EpoxyÉlite EVO

The first grout with Zherorisk® technology

LITOKOL®

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> breathe safe air



Zherorisk® is a research initiative carried out by Litokol's R&D division, with the participation of the University of Modena and Reggio Emilia 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".



The aim of Zherorisk® products is to guarantee the safety of people through three aspects: safeguarding the **health of professional operators**,

the **air quality in homes** and all environments, and the **transportation of goods**. The Zherorisk® research initiative results in the creation of new families of innovative products with **identical environmentally-friendly features**.



Zero risk for the installer

- ✓ Very low VOC emission rate
- ✓ Non-corrosive
- ✓ Non-toxic
- ✓ Non-hazardous to the environment



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



Zero risk for homes

- ✓ Very low VOC emission rate



Zero risk for the environment

- ✓ Renewable primary materials
- ✓ Recycled materials
- ✓ Lower energy consumption
- ✓ Lower CO2 consumption
- ✓ Reduced consumption of primary materials

CERTIFICATIONS

The challenge presented by the Zherorisk® research initiative was to drastically reduce the emission of volatile organic compounds (VOC), the main cause of indoor pollution, without altering the chemical and physical properties of the products.



EC1 PLUS

Litokol products with Zherorisk® technology are supplied 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 features 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.

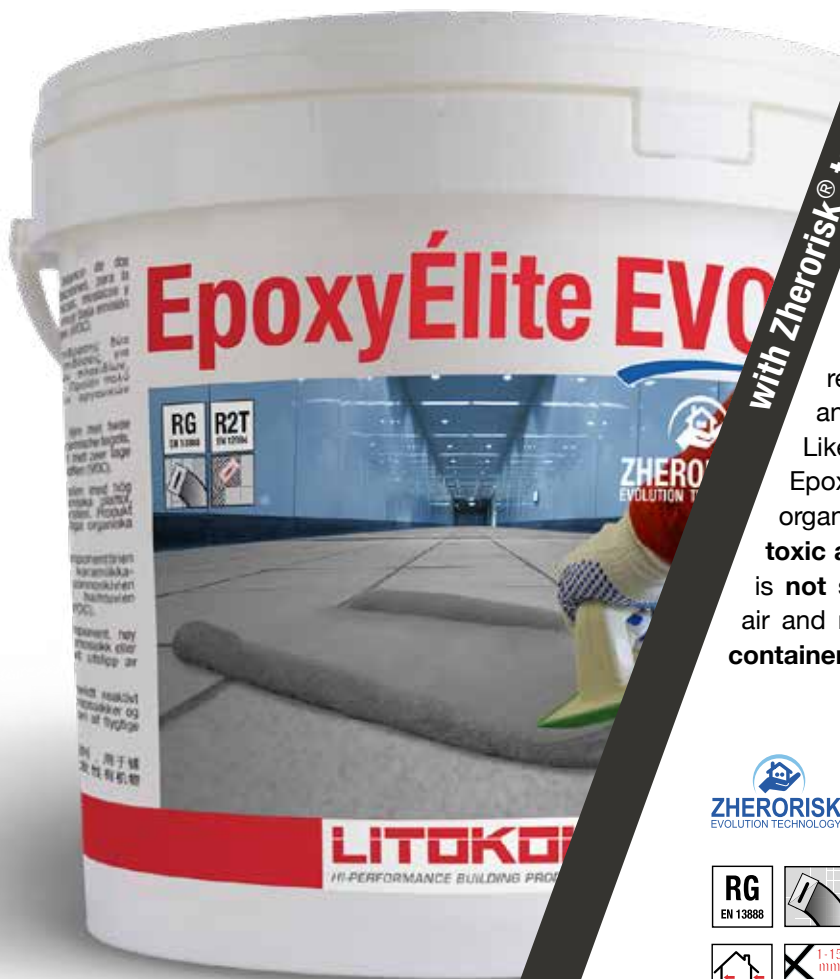
Litokol has embarked on a path to obtain the **Environmental Product Declaration (EPD)** for all its products with the **Life Cycle Assessment (LCA)** study of Zherorisk® products. The EPD or Environmental Product Declaration is developed by applying the UNI EN ISO 14025:2010 standard (Environmental labels and declarations - Type III environmental declarations) and is a tool for communicating **objective, comparable and credible information about the environmental performance of products and services**. The performances, outlined in the EPD, must be based on the Life Cycle Assessment (LCA). The international legislative framework for carrying out the LCA study are the ISO 14040 Series standards.

✓ Époxy Élite EVO



The first grout with Zherorisk® technology

> The new generation grout

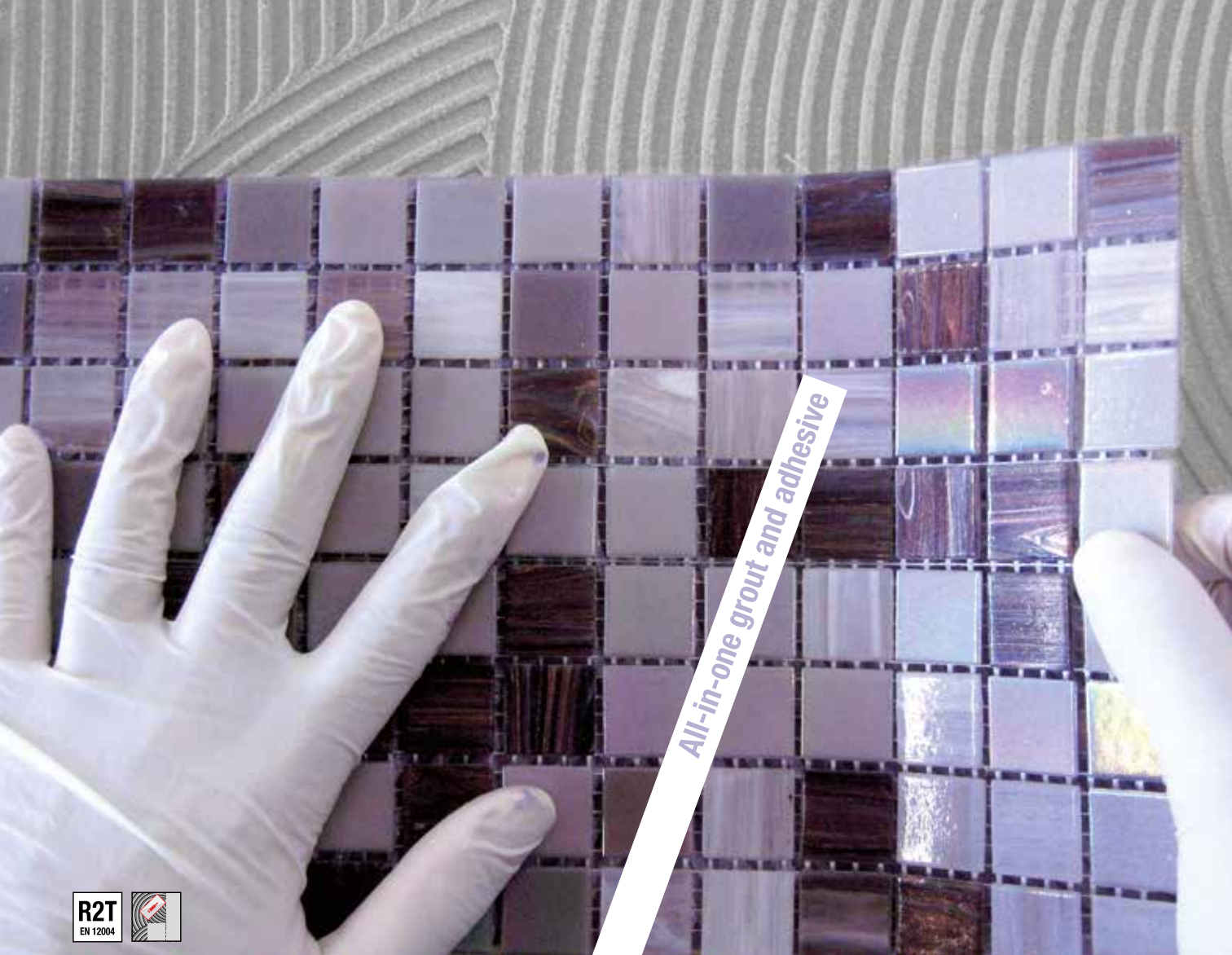


with Zherorisk® technology

EpoxyÉlite EVO is a two-part anti-acid epoxy mortar for the installation and grouting of ceramic tiles and mosaics with 1 to 15 mm joints, on indoor and outdoor floors and walls. It has an **ultra-low emission of volatile organic substances (VOC)**.

Part A consists of a mixture of epoxy resin, fine-grain siliceous aggregates and specific organic additives. Like all Zherorisk® products, **part B** of EpoxyÉlite EVO consists of an innovative organic catalyst which is **non-corrosive, non-toxic and harmless for the environment**, and is **not subject to restrictions** for road (ADR), air and rail transport; **it does not require IMO containers** for transport by sea.



EpoxyÉlite EVO is a **class R2T, high performance, no vertical slip** reactive adhesive for the laying of ceramic tiles indoors and outdoors on floors and walls. Excellent results in the adhesion strength test, much higher than the standard limit of $>2 \text{ N/mm}^2$. As an adhesive, it is recommended when installing thin mosaics.

ADHESIVE	
Trowel notch (mm)	Consumption (kg/m ²)
2	1,1
3,5	1,6
8	3
10	3,5

➤ Smooth and compact joints

Among the many features introduced, Zherorisk® technology has allowed the use of **fine-grain** quartz micro-granules, as aggregates, compared to the coarse grain variety commonly used in similar standard products, available on the market.

In terms of visual appeal, the joints not only look smoother and more compact, they are also able to absorb rays of light without any refraction.



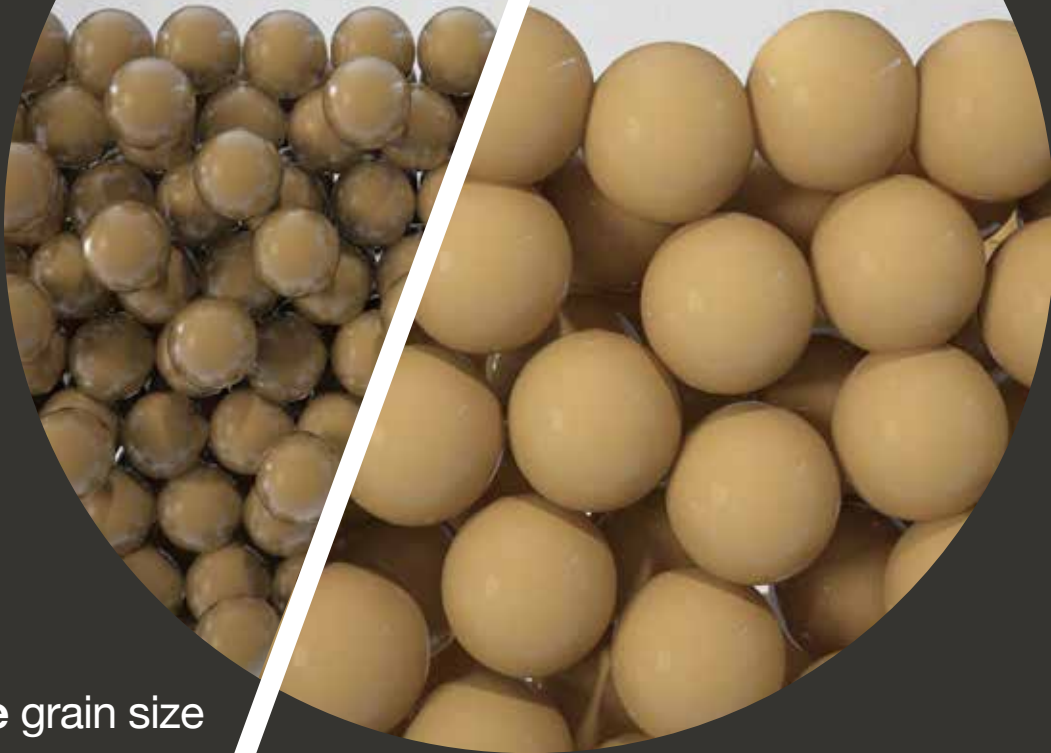
The colours, therefore, have a **soft** and **intense** appearance which blends perfectly with the **surface of the times**, making the joints, in matching colours, **virtually invisible.**

standard grain size

more irregular
and less compact
surface with higher
degree of staining

FINE GRAIN

COARSE GRAIN



fine grain size

particularly smooth and
compact grout with a
high aesthetic impact
and minimum staining



The **fineness**
of the **quartz grains**
allows a much more
fluid application
of the mix,
making it easier
to fill the joints
in **less time**
and with **less work**
by the installer.

fluid appli cation



cleaning

Joints made with EpoxyÉlite EVO stay looking good for longer because they are **easy to clean**, with excellent **water repellency** and **do not absorb** any kind of stain, even the toughest industrial stains.

EpoxyÉlite EVO

- Long-lasting colour
- Water-repellent
- Easy to clean
- Stain resistant

cementitious joint

- Greater absorbency
- Easily stained
- Possible formation of mould
- Lower mechanical resistance



> Industrial use

Excellent **compressive strength**, much higher than the standard limit of $>45 \text{ N/mm}^2$ and **flexural strength** much higher than the standard limit of $>30 \text{ N/mm}^2$



Grouting with EpoxyÉlite EVO can tackle even the most extreme **industrial applications** where the floors are subject to strong mechanical stress such as the transit of lift and pallet trucks. Due to its excellent resistance to chemicals, it is the ideal grouting for the **food industry** (oil mills, cured meat factories, breweries, slaughterhouses, fast food outlets). Ideal in demanding operating conditions, such as **swimming pools**, Turkish baths, whirlpools, floors subjected to heavy footfall, tiling exposed to extreme temperature fluctuations.



> The colours

An **impeccable joint** is guaranteed because it is strong, water repellent and easy to clean, as well as having a highly aesthetic appeal, ideal for any industrial, residential and commercial installation.

A rational choice of colours equally divided between **warm** and **cool shades** makes EpoxyÉlite EVO particularly suitable for grouting ceramics and mosaics indoors and outdoors on flooring and walls, in any residential and commercial setting, including heated floors, bathrooms and shower cubicles, kitchen counter tops, terraces and balconies.





210 greige

205 travertino

225 tabacco

230 cacao

Particularly **impressive**
is the aesthetic
rendering of joints
on **timber-effect**
and **natural**
stone-effect
ceramic floors

Warm shades



100 bianco assoluto

110 grigio perla

125 grigio cemento

140 nero grafite

elegant
cool shades



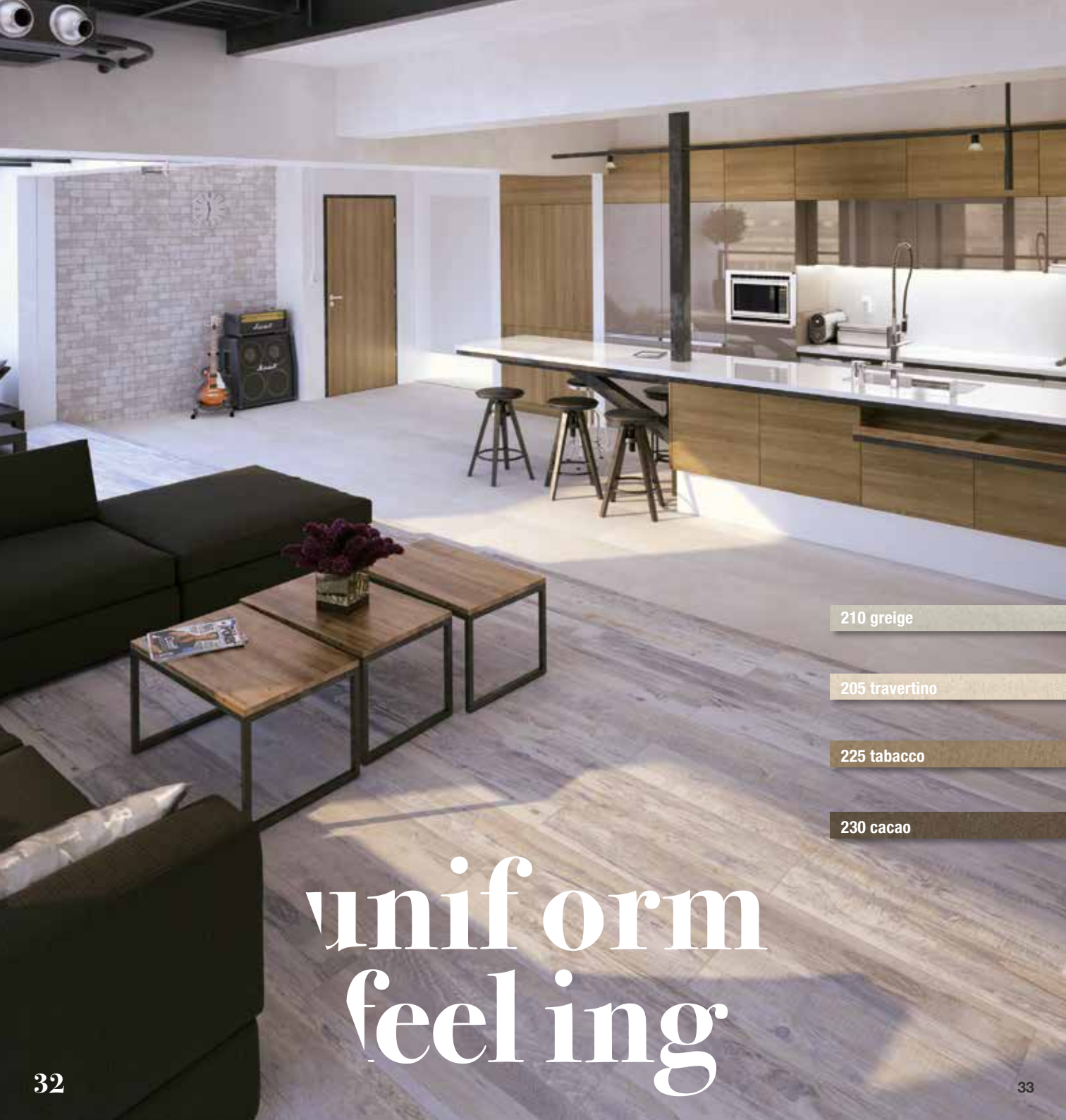
100 bianco assoluto

110 grigio perla

125 grigio cemento

140 nero grafite

one
colour
perfect
setting



210 greige

205 travertino

225 tabacco

230 cacao

uniform
feeling

Identification data

Appearance Part A: thick paste

Part B: liquid

Colours 100 Bianco Assoluto



110 Grigio Perla



125 Grigio Cemento



140 Nero Grafite



205 Travertino



210 Greige



225 Tabacco



230 Cacao



Classification according to EN 13888:

RG – reactive grout sealant

Classification according to EN 12004:

R2T – Improved reactive no vertical slip adhesive

Customs code:

35069190

Shelf life:

24 months in original packaging. Keep away from frost.

Application data

Ready for grouting

Floor installation with standard setting adhesive: 24 hours

Floor installation with quick setting adhesive: 4 hours

Cladding installation with standard setting adhesive: 6-8 hours

Cladding installation with quick setting adhesive: 4 hours

Mixing ratios:

Part A: 93.7 parts by weight

Part B: 6.3 parts by weight

The two parts are pre-batched in their respective packaging

Mix consistency:

Thixotropic paste

Specific gravity of mix:

1,6 kg/L

Pot life:

About 1 hour at T=+23°C

Application temperatures allowed:

From +10°C a +30°C

Recommended application temperature:

From +18°C a +23°C

Walkable:

24 hours at T=+23°C

Ready for use:

7 days at T=+23°C

Joint width:

From 1 to 15 mm

Performance

Initial shear adhesion:

≥ 2 N/mm² - EN 12003

Shear adhesion after water immersion:

≥ 2 N/mm² - EN 12003

Shear adhesion after thermal shock:

≥ 2 N/mm² - EN 12003

Open time:

≥ 0,5 N/mm² after 50 minutes - EN 1346

Slip resistance:

≤ 0,5 mm - EN 1308

Resistance to abrasion:

≤ 250 mm³ - EN 12808-2

Flexural strength after 28 days

at standard conditions: ≥ 30 N/mm² - EN 12808-3

Resistance to compression after 28 days

at standard conditions: ≥ 45 N/mm² - EN 12808-3

Shrinkage: ≤ 1,5 mm - EN 12808-4

Water absorption after 4 hours: ≤ 0,1 g - EN 12808-5

Working temperature: from - 20°C a +100°C

5 kg and 10 kg packs

5 kg

plastic bucket (A+B)

500 kg pallet

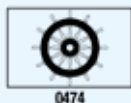


10 kg

plastic bucket (A+B)

440 kg pallet

EpoxyÉlite EVO is also produced in an FR (Flame Retardant) version for **use in the maritime sector**. The certificate of compliance for marine equipment has been granted for a kit consisting of **EpoxyÉlite EVO FR** grout, as well as **Litoelastic EVO FR** adhesive, according to Directive 2014/90/EU (2010 FTP Code). The certification relates to the determination of surface flammability of surface materials and primary deck coverings, in addition to the calorific potential. The kit satisfies the requirements of Part 5 of the FTP Code 2010 of the IMO (finishing materials for bulkhead and ceiling linings).




5 kg
plastic bucket




Application phases:


- 1




Empty completely all the contents of the catalyst (B) onto the paste (A).
- 2




Mix using an electric drill equipped with mixing paddle. Scrape the walls of the bucket to eliminate all parts of non-catalysed product.
- 3



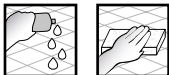
The joints must be dry. Apply the paste in the joints using a green rubber float (item 946GR), with diagonal movements in the direction of the joints. Remove the excess product.
- 4




The grout must be cleaned while the product is still wet. Sprinkle clean water. Initial cleaning with a damp white felt (item 109GBNC) and circular movements. Ensure no water enters the joints.
- 5




Second cleaning cycle with a sweepex sponge (item 128G0001).
- 6



Any stains of the transparent product can be removed after 24 hours or anyway after the gap has hardened. Use LITONET EVO (floors) or LITONET GEL EVO (walls). Spread Litonet or Litonet Gel with the white felt.
- 7



Leave on for 15-30 minutes. Scrub the surface with the white felt.
- 8



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

You may also require:

- 946GR


- 128G0001


- 109GBNC


- Litonet EVO
Litonet Gel EVO


- Litostrip


- Litonet PRO





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