LITOELASTIC EVO

WHITE TWO-PART FLEXIBLE REACTIVE, HIGH-PERFORMANCE NO VERTICAL SLIP ADHESIVE, FOR INDOOR AND OUTDOOR INSTALLATION OF ANY TYPE OF CERAMIC TILES, MOSAICS, NATURAL AND COMPOSITE STONES ON WALLS AND FLOORS. PRODUCT WITH ULTRA-LOW EMISSION OF VOLATILE ORGANIC SUBSTANCES (VOC).

R2T Conforme alla norma EN 12004

CE EN 12004

GEV-EMICODE EC1 PLUS very low emission

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

ZHERORISK® EVOLUTION TECHNOLOGY

DESCRIPTION

White two-part flexible reactive adhesive, water- and solvent-free, with high water repellency. Component A consists of synthetic resins, fine-grain inert aggregates and specific organic additives. Component B consists of an innovative organic catalyst. Once mixed together, the two components form an easily workable, thixotropic and particularly smooth paste that facilitates the work of installers.

ADVANTAGES

• Reactive adhesive formulated with special raw materials that give the product exceptional ease of application, unique in its kind.
• Suitable for indoor and outdoor floor and wall applications, even in harsh operating conditions.
• Multi-purpose adhesive suitable for bonding different types of claddings, such as ceramics, porcelain stoneware, large thin slabs, including those with reinforced back, clinker, glass or ceramic mosaics, natural or compound stones, including moisture-sensitive stones, on non-traditional surfaces such as metal, wood, fibreglass, PVC and vinyl.
• Product with high deformability and excellent water repellency properties.
• Suitable for one-step waterproofing and installation of ceramic tiles or mosaics in shower enclosures or indoor humid environments.
• Product with ultra-low emission of volatile organic substances. Compliant with EC1^{PLUS} classes, according to the EMICODE protocol and Class A +, pursuant to French Regulations.
• Product not subject to restrictions for road, sea, air and rail transport.

EN 12004 CLASSIFICATION

Litoelastic EVO is a R2T Class high-performance reactive no-drip adhesive for interior and exterior floor and wall ceramic tiling. Its compliance with harmonized standard EN 12004 is reported on the CPR-IT206 Declaration of Performance, pursuant to the European Regulation for construction products (CPR - Construction Products Regulation No.: 305/2011/EU) and tested by a European body notified as per certification system 3.

PACKAGING

5 kg buckets (A + B)	500 kg pallet
10 kg buckets (A + B)	440 kg pallet

INTENDED USE

Suitable for bonding any type of ceramic tiles, porcelain stoneware, thin slabs with and without reinforced back, glass and ceramic mosaics, all types of natural stones, including moisture-sensitive stones, such as green marble, slate and pietra serena, resin agglomerates, thin and flexible stone slabs with polyester and fibreglass support for indoor and outdoor installation on floors and walls, either on traditional or elastic and vibrating supports, such as wooden panels, metal surfaces and lightweight panels. Suitable for applications subject to heavy-duty operating conditions, such as swimming pools, hammams, whirlpools, heavy-traffic floors, and tiles exposed to extreme temperature variances. Typical applications include:
• Bonding of ceramic tiles and mosaics on wooden kitchen tops;
• Bonding of ceramic tiles, mosaics and natural stones on metal surfaces, for the construction of prefabricated bathrooms;
• Bonding of natural stones, including moisture-sensitive stones and those subject to staining;
• Bonding of ceramic tiles, mosaics, reinforced slabs, natural stones or resin agglomerates overlapping old ceramics or marble-chip tiles;
• Bonding of ceramic tiles, thin reinforced slabs, mosaics, natural stones or resin agglomerates on heated floors;
• Bonding of mosaics on structures and templates of extruded polystyrene panels used in Turkish baths and wellness centres;
• Bonding of ceramic tiles and mosaics in swimming pools and whirlpool tubs with traditional structures in concrete, AISI 316 steel and fibreglass;
• Bonding of ceramic tiles and mosaics in swimming pools, including surfaces waterproofed with Elastocem, Coverflex or Aquamaster;
• Bonding of ceramic tiles, porcelain tiles and thin slabs, including large slabs with or without reinforced back, installed on external façades;

SUITABLE SUBSTRATES

Cement screeds, Litocem/Litocem Pronto screeds, sulphate (anhydrite) screeds, levelling with Litoliv S40 ECO, Litoliv Extra 15, Litoliv Express, Litoplan Smart, concrete structures cast on site or prefabricated, supports waterproofed with Elastocem, Coverflex or Aquamaster, surfaces coated with resinous decorative systems (after sanding), cement plasters, lime/cement plasters, gypsum plasters, wood or metal panels, fibreglass, PVC, vinyl, wooden floors, existing ceramic or natural stone titles and lightweight panels.

INSTALLATION PLANNING

The only way to guarantee the long-lasting performance of ceramic installations is to properly plan the process. We therefore recommend that national regulations currently in force in each country be carefully read, for example UNI 11493 in Italy, which provides all necessary instructions regarding the choice of materials, correct planning, use and installation, so as to ensure all quality, performance and durability standards are safely met.
Some of the general precautions that need to be followed are listed below as an example.

Substrates
Before installation, check that the substrates are clean, free of loose fragments, properly dried and cured, flat and level, and that mechanical resistance requirements based on the intended use have been met.

Worksite conditions
At the time of application, check that worksite temperature, humidity, light, etc. are adequate.

Materials
Check that all materials used for tiling (ceramic materials, levelling systems, adhesives, grouts, waterproofing products, etc.) are suitable for the intended use and have been correctly stored.

Expansion joints
Check that the perimeter, expansion, fractionation and structural elastic joints have been correctly designed and prepared. Divider joints are normally needed for 20/25 m^2 sections in interiors, and 9-15m^2 sections in exteriors. For exteriors, make sure joints are properly waterproofed and sealed.

Back-buttering
In the case of outdoor installation, swimming pools, large spaces, high- or heavy-traffic floors, thin slabs, and vibrating substrates, and where temperature fluctuation is expected, it is necessary to apply the adhesive both on the substrate and on the back of the tiles, in order to obtain a full adhesive layer without gaps.

Joints
In any type of ceramic tiling, suitably sized joints must be developed based on the following parameters:
• Type, format and size tolerance of tiles;
• Thermal expansion coefficients of the tiling materials being used;
• Mechanical properties of installation materials;
• Location and path of joints;
• Mechanical characteristics of the substrate;
• Environment of use and expected operating conditions.
JOINT-FREE INSTALLATION IS NOT PERMITTED.
Any plastic spacers must be removed before grouting.

MIX RATIO

Component A 92.6 parts by weight
Component B 7.4 parts by weight
The two parts are pre-batched in their respective packaging.

MIX PREPARATION

Pour component B (catalyst) onto component A (paste). We recommend pouring all the catalyst contained in the bag. Mix preferably with the help of a drill mixer to obtain a smooth, lump-free mix. Hand mixing is not recommended. The two parts are pre-batched in their packaging, avoiding , this way, all risk of mixing errors.

APPLICATION

Apply the product with a notched trowel. The trowel notch size will depend on the size of the tiles. In any case, the trowel must allow a backwash of 65-70% in the case of indoor installation, and 100% in the case of outdoor installation, for floors subject to heavy traffic or mechanical stress, and for swimming pools.
In the case of single-step waterproofing and installation of ceramic material or mosaics in shower enclosures or humid indoor environments, a layer of at least 1 mm of product must be applied onto the area to be waterproofed. After hardening (about 24 hours), apply the adhesive with a notched trowel to install the ceramic material.

TILE INSTALLATION

Tiles are laid on the adhesive, applying pressure to ensure contact with the adhesive, which must be used within a maximum period of 50 minutes after preparation. At normal temperature and humidity conditions, the product has a working life of approximately 1 hour. This parameter may be shortened at high temperatures, or otherwise extended at low temperatures. The tiles must be laid by making joints of a width suitable for their size. During installation, it is necessary to work around expansion or splitting joints, if any. Leave a 5 mm space in between tiles and walls, or any surface elevation. The ceramic surface must be protected for at least 24 hours from any leaching. Tiled surfaces can be put into operation after about 7 days.

GROUTING

The grout can be sealed after about 24 hours. For sealing, it is possible to use cement-based sealants Litochrom 0-2, Litochrom 1-6, Litochrom 3-15, Monomix, ready-to-use polymeric mortar or Starlike® or EpoxyÉlite EVO 2-part epoxy sealants.

WARNINGS

• Do not add lime, cement, water or solvents to the product.
• Apply the product at temperatures between +10°C and +30°C.
• Do not apply the product on damp surfaces or surfaces subject to rising damp.
• Do not use the product for applications not stated in this technical sheet.

SAFETY INFORMATION

Consult the product safety data sheets, available on request. PRODUCT FOR PROFESSIONAL USE.

ITEM SPECIFICATION

Any type of ceramic tiles, natural stones, glass or ceramic mosaics, resin agglomerates, thin slabs with and without reinforced back, and thin and flexible stone slabs with polyester and fibreglass substrate must be installed with a reactive 2-part, improved, no-drip R2T class adhesive, pursuant to EN 12004, like Litoelastic EVO produced by Litokol S.p.A.

IDENTIFICATION DATA

Appearance	Component A: thick paste Component B: liquid
Colour	Component A: white Component B: straw-coloured transparent
Classification as per EN 12004	R2T - Improved reactive no-drip adhesive
Customs code	35069190
Shelf life	24 months, in original packaging. Keep away from frost

APPLICATION DATA

Mix ratio	Component A 92.6 parts by weight Component B 7.4 parts by weight		
Mix pot life	About 1 hour at T = +23°C		
Application temperatures allowed	From +10°C to +30°C		
Bonding time	About 1 hour		
Equipment and residue cleaning	With water and Scotch-Brite™ pad, when product is fresh. Once hardened, only mechanical cleaning.		
Consumption	Mosaics and small surfaces	2 mm trowel 1.1 kg/m^2	3.5 mm trowel 1.8 kg/m^2
	Normal-size surfaces with sides ≤ 60 cm	8 mm trowel 3 kg/m^2	10 mm trowel 3.5 kg/m^2
	Large-size surfaces with sides > 60 cm	Back-buttering 5 kg/m^2	
Walk-on time	About 24 hours at T = +23°C		
Ready for use	7 days		
Waiting time for grouting	Approx. 24 hours		

PERFORMANCE

Shear adhesion to initial cut	≥ 2 N/mm^2	
Shear adhesion strength after water immersion	≥ 2 N/mm^2	**EN 12003**
Shear adhesion after thermal shocks	≥ 2 N/mm^2	
Open time	≥ 0.5 N/mm^2 after 50 minutes	**EN 1346**
Slip resistance	≤ 0.5 mm	**EN 1308**
Deformability	Highly deformable	
Temperature of use	From – 40°C to +100°C	
Resistance to acids	Good	
Resistance to alkalis	Good	

Although the information provided in this technical data sheet is accurate to the best of our knowledge and experience, it is intended purely as a guideline. The user must carry out preliminary practical tests before each use and is solely responsible for the final result.

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