



# LITOELASTIC

**Reactive two-component improved adhesive with no vertical slip, to lay ceramic tiles, mosaics, natural and reconstituted stone.**



### DESCRIPTION

Two-component reactive adhesive Component A consists of inert load, epoxy-polyurethane synthetic resins featuring a fine grain size and organic additives. Component B consists of organic catalysts.

### ADVANTAGES

- Suitable for indoor and outdoor applications on floor and wall even in severe usage conditions.
- Multi-purpose adhesive suitable for bonding various materials even on non-traditional substrates such as metal, fibreglass, PVC, linoleum.
- Product featuring high elasticity and excellent water resistance.
- Suitable for simultaneous waterproofing and laying ceramic tiles or mosaics in shower stalls or wet interior environments.
- Product with very low emission of volatile organic compounds. Compliant with class A+ according to French Regulations.

### EN 12004 CLASSIFICATION

Litoelastic is a class R2T reactive, improved adhesive with no vertical slip for indoor and outdoor ceramic tiling on flooring and walls. Conformity of the product with the EN 12004 harmonised standard is reported in the Declaration of Performance CPR-IT203 according to the European Regulation for construction products (CPR - Construction Products Regulation No.: 305/2011/EU) and tested by a notified European body according to system 3 certification.

### PACKAGING

5 kg buckets (A + B)	Pallet Eur 500 kg
10 kg buckets (A + B)	Pallet Eur 400 kg

### INTENDED USE

Suitable for fixing all types of ceramic tiles, thin porcelain slabs with and without reinforcement, glass and ceramic mosaics, all kinds of natural stones even unstable ones such as green marble, slate and Serena sandstone, resin agglomerates, thin and flexible stone plates with polyester backing and fibreglass backing, indoors and outdoors on flooring and walls on traditional supports or elastic and vibrating ones such as wood panels, metal surfaces, lightened panels. Suitable for applications subject to severe operating conditions such as swimming pools, floors subject to heavy traffic, tiling exposed to high temperature fluctuation. Typical examples of application involve:

- The bonding of ceramic tiles and mosaics on wood kitchen tops;
- The bonding of mosaics and ceramic tiles on metallic surfaces for the production of prefabricated bathrooms;
- The bonding of natural stone even unstable due to moisture or subject to staining;

- The bonding of ceramic tiles, mosaics, reinforced slabs, natural stone or resin agglomerates on top of old ceramic tiles or marble chip tiles;
- The bonding of ceramic tiles, thin reinforced slabs, mosaics, natural stone or resin agglomerates on heated flooring;
- The bonding of mosaics and fillets consisting of extruded polystyrene panels used in saunas, hammam and wellness centres;
- The bonding of ceramic tiles and mosaics at floor-level ducts and shower drains;
- The bonding of ceramic tiles and mosaics in swimming pools;
- The bonding of ceramic tiles and mosaics in swimming pools even on waterproofed surfaces with Elastocem, Coverflex or Aquamaster;
- The bonding of ceramic tiles and mosaics in fibreglass baths;
- The bonding of ceramic tiles and thin slabs, including large format ones, on outdoor façades;
- The bonding of slabs consisting in resin agglomerates;

### SUITABLE SUPPORTS

Cement screeds; Litocem-based screeds; sulphate-based screeds (anhydrite); smoothing made with Litoliv S40 Eco, Litoliv Extra 15, Litoliv Express, Litoplan Rapid, Litoplan Smart; in-situ or precast concrete; supports waterproofed with Elastocem, Coverflex or Aquamaster; cement plasters; lime/cement plasters; gypsum/anhydrite-based plaster; wood or metal panels; fibreglass; PVC; linoleum; parquets; lightened panels.

### TILING DESIGN

The durability of ceramic tiling can only be guaranteed by means of a good manufacturing. We therefore recommend referring to the national legislation in your country such as for example standard UNI 11493:2013 for Italy which provides the necessary guidelines for choosing materials, correct design, use and installation, in order to ensure the achievement of the required levels of quality, performance and durability.

By way of example we show some requirements to adopt as a general rule.

### Substrates

Before laying, check that the substrates are clean, free of loose particles, thoroughly dry and cured, flat and levelled, with sufficient mechanical strength in accordance with the intended use of the tiling.

**Site conditions**

Ensure the conditions for temperature, humidity, lighting, etc. at the time of product application are adequate.

**Materials**

Ensure all materials involved in tiling (ceramics material, levellers, adhesives, sealants, waterproofing products, etc.) are suitable for the intended use and properly stored.

**Expansion joints**

Verify that the perimeter flexible expansion, fraction and structural joints are properly designed and prepared. Generally fraction joints must be provided for 20/25 m<sup>2</sup> partitions indoors and 9-15 m<sup>2</sup> outdoors. For outdoors, verify that these joints are properly waterproofed and sealed.

**Double coating**

When laying outdoors, swimming pools, large formats, floors subject to heavy or intense traffic, thin slabs, vibrating substrates and situations where there are large changes in temperature, the adhesive needs to be applied both on the substrate and the back of the tiles in order to obtain a full bed of adhesive free from voids.

**Grout joints**

In all types of ceramic tiling the grout joints must be of suitable width in accordance with the following parameters:

- Type, format and dimensional tolerances of the tiles;
- Thermal expansion coefficients of the materials constituting the tiling;
- Mechanical properties of the laying materials;
- Location and path of the joints;
- Mechanical features of the substrate;
- Target environment and planned operating conditions.

LAYING WITH CLOSED JOINTS IS NOT ALLOWED

Any plastic spacers are to be removed before grouting.

**MIXING PROPORTIONS**

Component A 9.2 parts in weight

Component B 0.8 parts in weight

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

**PREPARING THE MIXTURE**

Pour the Component B (catalyst) over Component A (mixture) It is recommended to pour the entire content of the catalyst contained in the package. Mix by using the electric drill equipped with mixing paddle until obtaining a homogeneous and clot-free mixture. It is not recommended to carry out the mixing by hand. The packages of the 2 components are previously dosed so as to avoid any mixing errors.

**APPLICATION**

Apply the product with a notched trowel. The notches of the trowel must be chosen based on the size of the tiles to be applied. In any

case, it must allow for 65-70% adhesive spread on the reverse side of the tiles in the case of indoor installation and 100% in the case of outdoor installation, for floors subject to heavy traffic or particular strain and in the case of swimming pools.

In the case of simultaneous waterproofing and laying of ceramic material or mosaic in shower stalls or wet indoor environments, a product layer of at least 1 mm needs to be applied by smooth trowel on the area to be waterproofed and upon hardening (about 24 hours), apply the product with a notched trowel for laying the ceramic material.

**INSTALLATION OF THE TILES**

The tiles are laid on the adhesive applying a consistent pressure to ensure contact with the adhesive before its drying up which will occur after 50 minutes. The time of workability of the product in normal temperature and humidity conditions is approximately 1 hour. High temperatures will shorten these times, lower temperatures will lengthen them. The tiles must be laid creating joints with widths suitable to their format. During installation, respect any expansion or splitting joints. Leave a space of at least 5 mm at the walls or at any surface elevation. The ceramic surface must be protected for at least 24 hours against water. The commissioning of tiled surfaces can take place after approximately 7 days.

**GROUTING OF TILED SURFACES**

The joints between the tiles may be grouted after about 24 hours. Cement-based Litochrom 0-2, Litochrom 1-6, Litochrom 3-15 sealants, Starlike® Monomix polymer mortar or two-component Starlike® and Epoxystuk X90 epoxy sealants may be used for sealing.

**WARNINGS**

- Do not add lime, cement or water to the product.
- Apply the product with a temperature range between +10° C and +30° C.
- Do not apply the product on moist surfaces or subject to rising dampness.
- Do not use the product for applications not found in this technical sheet.

**INFORMATION ON SAFETY**

See product material safety data charts: available upon request.  
PRODUCT FOR PROFESSIONAL USE.

**SPECIFICATIONS**

Laying any type of ceramic tiles, natural stone, glass or ceramic mosaic, resin agglomerates, thin plates with and without reinforcement, thin and flexible stone slabs with polyester backing and glass fibre must be performed with a class R2T two-component reactive adhesive, improved and with no vertical slip pursuant to EN 12004 type LITOELASTIC produced by Litokol S.p.A




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**IDENTIFICATION DATA**


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<b>Appearance</b>	Component A: thick paste Component B: thick liquid
<b>Colour</b>	Component A: white Component B: beige
<b>EN 12004 CLASSIFICATION</b>	R2T - Improved reactive adhesive with no vertical slip
<b>Custom classification</b>	35069190
<b>Storage time</b>	24 months in its original packaging. Preserve with special packaging at very low temperatures. Protect from frost.

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**APPLICATION DATA**


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<b>Mixing proportion</b>	Component A 9.2 parts in weight Component B 0.8 parts in weight
<b>Mixture life</b>	Approx. 1 hour at T=+23°C
<b>Admitted application temperatures</b>	From +10°C to +30°C
<b>Open time (EN 1346)</b>	> 0,5 N/mm <sup>2</sup> after 50 minutes
<b>Adjustment time</b>	Approx. 1 hour
<b>Cleaning the tools and residues</b>	With water and scotch brite with fresh product. Upon hardening only mechanically.
<b>Consumption</b>	Mosaics and small formats (spatula 3.5 mm): 2 kg/m <sup>2</sup> Normal formats with larger side ≤ 60 cm (spatula 8 mm): 3.5 kg/m <sup>2</sup> Large formats with larger side > 60 cm (double spreading): 5 kg/m <sup>2</sup>
<b>Can be stepped on</b>	Approx. 24 hours at T=+23°C
<b>Waiting time before fully usable</b>	7 days
<b>Waiting time before grouting</b>	Approx. 24 hours

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**PERFORMANCE**


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<b>Shear adhesion at initial cutting (EN 12003)</b>	> 2 N/mm <sup>2</sup>
<b>Shear adhesion after water immersion (EN 12003)</b>	> 2 N/mm <sup>2</sup>
<b>Shear adhesion after thermal shock (EN 12003)</b>	> 2 N/mm <sup>2</sup>
<b>Deformability</b>	Highly deformable
<b>Application temperatures</b>	From -40°C to +100°C
<b>Resistance to acids</b>	Good
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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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**LITOKOL S.p.A.**

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