



## LITOSTONE K99

**HIGH-PERFORMANCE FAST-SETTING AND FAST-DRYING WHITE CEMENTITIOUS ADHESIVE FOR CERAMIC TILES AND NATURAL STONE SUITABLE FOR INSTALLATION OVER EXISTING TILES**



### DESCRIPTION

White powder adhesive consisting of special hydraulic binders, inert fillers of selected particle size and organic additives..

### PACKAGING

25 kg bags

Standard pallet 1500 kg

### CLASSIFICATION EN 12004

LITOSTONE K99 + 25% WATER

Class C2FE

Enhanced fast-setting with extended open time cementitious adhesive

### FIELDS OF APPLICATION

Suitable for fixing any kind of ceramic tile to floors or walls in interiors or exteriors. See application chart. Also suitable for gluing natural and reconstituted stone with the exception of materials subject to large dimensional deformations such as. green marble, sandstone, pietra serena

SUBSTRATES	MINIMUM CURING TIME	MAXIMUM RESIDUAL MOISTURE CONTENT	GENERAL CONDITIONS
*Pre-treated with PRIMER X94 or PRIMER C.			
Cement-based screeds	28 days	3%	Clean Solid and compact Free from cracks Flat and level Sufficiently cured
LITOCER screeds	24 hours	3%	
Anhydride screeds*	-	< 0,5%	
Concrete	6 months	-	
Cement-based plaster	1 week per cm thickness	-	
Gypsum based plaster*	-	< 0,5%	

### EXPANSION JOINTS

Movement joints have the function of interrupting the continuity of the tiled surface, thereby compensating for dimensional changes and deformations affecting the tiles, adhesive and substrate. The joints must always extend through both the bedding layer and the tiles.

RECOMMENDED SPACING	INTERIORS	EXTERIORS
	Squares from 6x6 m to 10x10 m	Squares from 3x3 m to 5x5
WIDTH OF JOINTS	Floors: ≥ 6 mm Walls: 6 mm (never < 3 mm)	Squares 3x3: 10 mm Squares 5x5: 12-13 mm
SUITABLE SEALING PRODUCTS	PVC, aluminium or steel strips depending on expected traffic Silicone sealants	Silicone sealants

### MIXING RATIOS

LITOSTONE K99 - 25 kg. (1 bag) - WATER: 6.25 L (25%)

### MIX PREPARATION

Put the correct quantity of water into a clean container and slowly add the powder. Mix with an electric drill equipped with mixing paddle until a uniform, lump-free mix is obtained. Leave the mix to rest for at least 5 minutes then re-mix briefly for a few seconds. Pot life is about 35 minutes at a temperature of +23°C. Be sure to mix only the quantity of product that you can actually use within this period of time.

### APPLICATION

Spread the mix onto the substrate using the smooth part of the trowel to create a layer of about 1 mm thickness. Immediately afterwards comb using the notched part of the trowel. The trowel notch size must be chosen according to the size of the tiles. In any case it must assure 65-70% coverage of the back of the tiles for interior installation and 100% for exterior installation or floors subject to intense traffic. In exterior installations or areas subject to high stress, it is advisable to apply the adhesive additionally to the back of the tiles (back-buttering method).

### LAYING THE TILES

Place the tiles on the adhesive and press firmly to assure good contact. The product's open time in normal conditions of temperature and humidity is about 15 minutes. However, this may be reduced to just a few minutes in very hot or windy weather. It is advisable to check frequently that the adhesive has not skinned over. If it has, comb the surface of the adhesive again using the notched trowel. Tiles must be laid with grout joints of adequate width for their size. Butt-jointing (tiles touching) is not recommended. Take account of expansion or control joints during installation. Leave a space of at least 5 mm next to walls or vertical elements. The tiled surface must be protected for at least 6 hours from water and for about 24 hours from frost.

### GROUTING

The joints between tiles can be grouted after about 4 hours. Grouting can be carried out using cementitious grouts LITOCHROM 0-2, LITOCHROM 1-6, LITOCHROM 3-15, LITOCHROM FLEX 3-10.

In the case of acid-resistant floors, we recommend using two-part epoxy grout EPOXYSTUK X90 or LITOCHROM STARLIKE®.

### WARNINGS

- Do not add lime or cement to the product.
- Apply the product at temperatures of between +5°C and +30°C.
- Do not use for applications not stated on this technical sheet.
- For correct use, refer to the application chart on the technical sheet.
- Pot life is about 45 minutes at a temperature of +23°C. Be sure to mix only the quantity of product that you can actually use within this period of time.
- Do not use for gluing stone subject to significant size deformation, such as: green marble, sandstone, pietra serena.

### IDENTIFICATION DATA

Appearance	Powder
Colour	White
Classification to EN 12004	C2FE – Enhanced fast-setting with extended open time cementitious adhesive
Customs code	3824 5090
Shelf life	12 months in original packaging in dry place

### APPLICATION DATA

Mixing ratios	Water = 25% (6.25 l per 25 kg bag)		
Maturing time	5 minutes		
Mix consistency	Creamy		
Pot life	About 35 minutes		
Application temperature	From +5°C to +35°C		
Open time (EN 1346)	≥ 0.5 N/mm² after 10 minutes		
Maximum applicable thickness	5 mm		
Adjustability time	About 20 minutes		
Consumption	<b>Tile size (cm)</b>		<b>Recommended trowel size (mm)</b>
	10 x 10	15 x 15	6
	15 x 20	25 x 25	6 - 8
	25x33	33x33	8 - 10
	30x45	45x45	10 back-buttering
	50x50	60x60	10 back-buttering
Consumption (kg/m²)	2,5		
Consumption (kg/m²)	2,5 - 3		
Consumption (kg/m²)	3,5 - 4		
Consumption (kg/m²)	4,5 - 5		
Consumption (kg/m²)	5		
Walk on time	4 hours		
Ready for use	24 hours		
Ready for grouting	about 4 hours		

**PERFORMANCE**

Bonding strength after 6 hours (EN 1348)	$\geq 0,5 \text{ N/mm}^2$
Bonding strength after 28 days (EN 1348)	$\geq 1 \text{ N/mm}^2$
Bonding strength after immersion in water (EN 1348)	$\geq 1 \text{ N/mm}^2$
Bonding strength after action of heat (EN 1348)	$\geq 1 \text{ N/mm}^2$
Bonding strength after freeze-thaw cycles (EN 1348)	$\geq 1 \text{ N/mm}^2$
Temperature of use	From $-30^{\circ}\text{C}$ to $+90^{\circ}\text{C}$
Resistance to acids	No
Resistance to alkalis	Good

**SAFETY INFORMATION**

Consult the Material Safety Data Sheet, available on request.

PRODUCT FOR PROFESSIONAL USE.

**APPLICATION CHART**

SUBSTRATES	SIZES (cm)	Mosaic 1 x 1 5 x 5	10x10 15x15	15x20 25x25	25x33 33x33	30x45 45x45	50x50 60x60	OVER
INTERIOR FLOORS	JOINTS (mm)	1,5 - 3	1 - 4	2 - 6	3 - 7	4 - 10	6 - 12	10 - 16
Cured floating or separated cement-based screeds			•	•	•	•	•	
Dry anhydride screeds sandpapered and treated with <b>PRIMER C</b> or <b>PRIMER X94</b>			•	•	•	•	•	
Existing concrete floors (cleaned and degreased)			•	•	•	•	•	
Ceramic tile, stone or agglomerate floors (cleaned and degreased)			•	•	•	•	•	
Heated cement-based screeds after pre-heating cycle			•	•	•	•	•	
Surfaces treated with <b>HIDROFLEX</b>			•	•	•	•		
Concrete structures cured for at least 6 months			•	•	•			
Metal or wood surfaces. Existing PVC, rubber or linoleum floors								
INTERIOR WALLS	JOINTS (mm)	1,5 - 3	1 - 4	2 - 6	3 - 7	4 - 10	6 - 12	10 - 16
Cement-based plaster on cured masonry			•	•	•	•	•	
Dry plaster or gypsum panels treated with <b>PRIMER C</b> or <b>PRIMER X94</b>			•	•	•	•	•	
Cured light block masonry			•	•	•	•	•	
Existing solid ceramic walls (cleaned and degreased)			•	•	•	•		
Gypsum board sandpapered and treated with <b>PRIMER C</b> or <b>PRIMER X94</b>			•	•	•			
Surfaces treated with <b>HIDROFLEX</b>			•	•	•			
Cast or prefabricated concrete structures cured for at least 6 months			•	•				
Metal or wood surfaces								
EXTERIOR FLOORS	JOINTS (mm)	1,5 - 3	3 - 6	5 - 8	7 - 10	10 - 12	12 - 14	> 14
Cured floating or separated cement-based screeds			•	•	•			
Existing concrete, ceramic tile or stone floors			•	•	•			
Concrete structures cured for at least 6 months								
Surfaces treated with <b>ELASTOCEM</b>			•	•	•			
EXTERIOR WALLS	JOINTS (mm)	1,5 - 3	3 - 6	5 - 8	7 - 10	10 - 12	12 - 14	> 14
Cement-based plaster on cured masonry			•	•				
Cast or prefabricated concrete structures cured for at least 6 months								
Surfaces treated with <b>ELASTOCEM</b>								

**KEY**

- Application possible with Litostone K99 + 25% water

Although the information provided on this technical sheet represents the best of our knowledge and experience, it is intended purely as a guideline.  
 The user must carry out preliminary practical tests for each specific job and is solely responsible for the final result..

**Sheet no. 009**
**Revision no. 3**
**Date: March 2012**
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