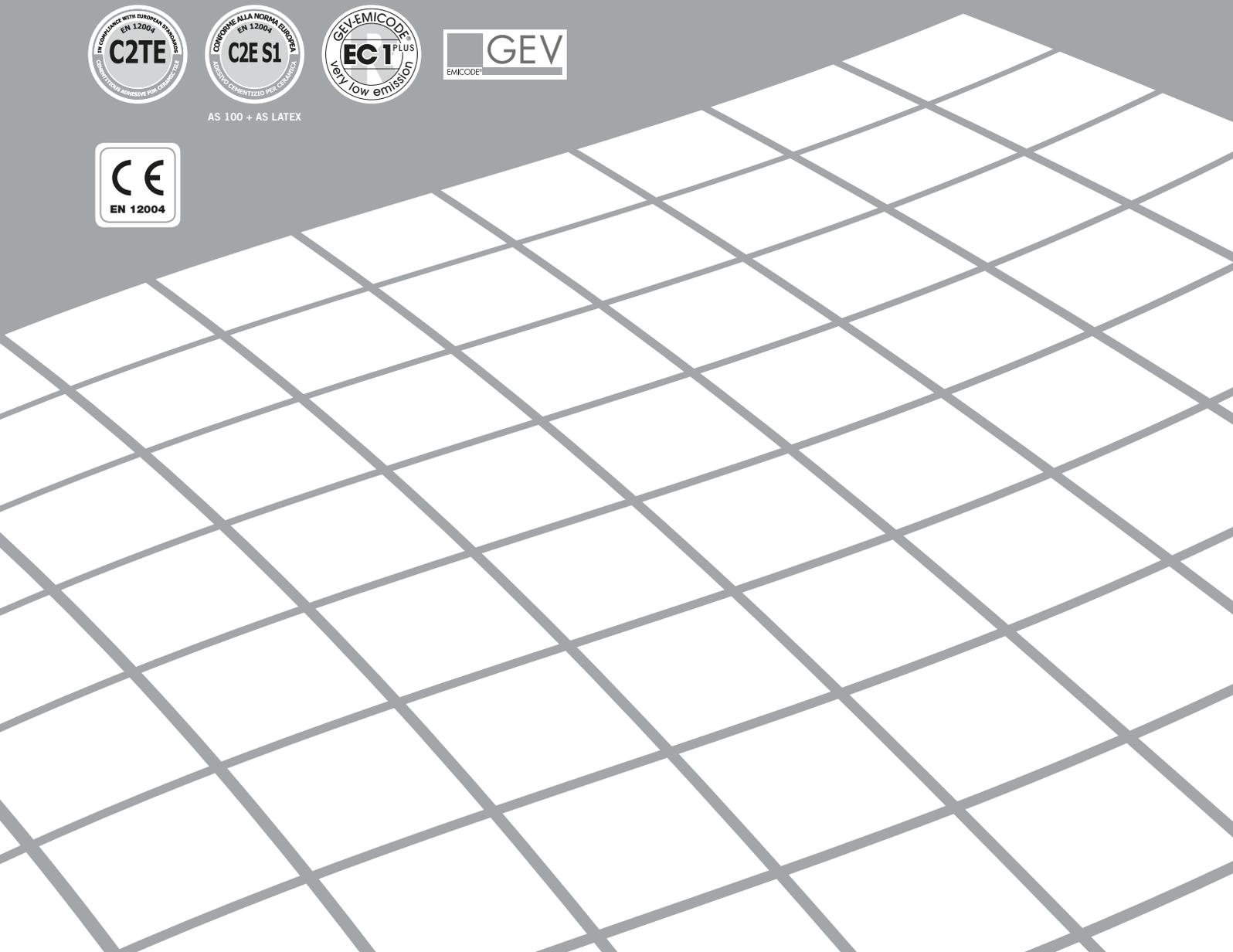


# AS 100

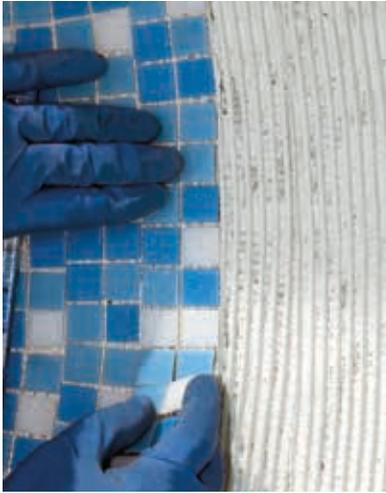
High-performance, white cementitious adhesive with no vertical slip and extended open time for glass, ceramic and marble mosaics



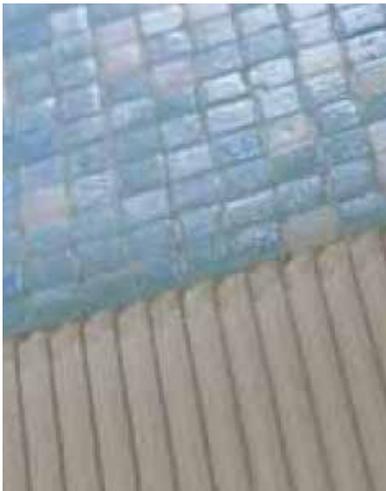
AS 100 + AS LATEX



# AS 100



Application of 2x2 glass mosaic in a swimming pool using **AS 100** mixed with **AS LATEX**



Application of 1x1 glass mosaic on a wall



## CLASSIFICATION ACCORDING TO EN 12004

**AS 100** is a C2TE class cementitious (C), improved (2), slip-resistant (T), extended open time (E) adhesive.

## AREAS OF USE

To bond the following materials on internal and external walls and floors:

- Glass, ceramic and marble mosaic with suitable mesh backing.

## Some application examples of **AS 100**:

- Bonding ceramic and glass mosaics and marble mosaic not moisture sensitive to damp to on cementitious render, starting from the bottom working upwards.
- Bonding mosaics on substrates with special shapes without the mosaic tesserae slipping.
- Bonding mosaics on plasterboard panels.

## **AS 100** mixed with **AS LATEX**:

- Bonding glass mosaics in swimming pools, on render or on substrates waterproofed with a cementitious waterproofing membrane.
- Bonding mosaics on existing internal ceramic tiles.

## TECHNICAL CHARACTERISTICS

**AS 100** is a very fine, white powder made from cement, selected aggregates, synthetic resins and special additives.

When mixed with the right amount of water or **AS LATEX**, **AS 100** forms a mortar with the following characteristics:

- white in colour. It enhances the colours of glass mosaic tiles;
- creamy paste with good workability;
- excellent adhesion to most materials normally used in the building industry;
- highly thixotropic; does not run or drip when applied on vertical surfaces and prevents even heavy mosaic sheets from slipping. Mosaic tiles can be installed from the top towards the bottom;
- particularly long open and adjustment times to make laying operations easier.

**N.B.:** When **AS 100** is mixed with **AS LATEX** and water (a ratio of 1:1), the adhesive has even better characteristics and complies with the requirements of class C2E S1 according to EN 12004 (improved, deformable cementitious adhesive with extended open time).

## RECOMMENDATIONS

Use **AS 100** mixed with **AS LATEX** and water in the following cases:

- to install glass or ceramic mosaics on non-absorbent surfaces
- to install glass or ceramic mosaics in swimming pools, tanks and similar structures, including on absorbent substrates.

Do not use **AS 100** in the following cases:

- on wood or wooden conglomerates;
- on the surface of metal, rubber, PVC and linoleum;
- to install ceramic tiles that require a layer of adhesive thicker than 5 mm;
- on concrete subject to strong delayed movement, that is, with less than 6 months curing time.

Particularly damp substrates lengthen the setting time of **AS 100**.

## APPLICATION PROCEDURE

### Preparation of the substrate

Substrates must be well cured and strong, free of all surface laitance, grease, oil, paintwork, and wax and adhesion inhibiting materials, must be sufficiently dry.

Cementitious substrates must not shrink after applying the sheets of mosaic. Therefore, in good weather, cement: sand render must be cured for at least 2 weeks and cementitious screeds must be cured for 3 weeks unless they are made using a special screed binder. If the surface is too hot due to direct sunlight, cool it down with water.

Gypsum substrates and anhydrite screeds must be perfectly dry, hard enough for the final intended use, have no traces of dust and be treated with a special Primer.

### Preparation of the mix

Pour **AS 100** while mixing into a container with around 34% in weight of clean water (8.5 litres of water every 25 kg of powder).

Stir the mix, preferably with a mixer at low-speed to avoid air entrainment, until a smooth, creamy, lump-free paste is obtained.

Let the mix stand for 5-10 minutes then mix again briefly before use.

The mix obtained as described above remains workable for at least 8 hours.

### Spreading the mix

In order to help the mix adhere to the substrate, we recommend applying a

thin, even layer of adhesive using the smooth side of a notched trowel. This will help make the most of the open and adjustment times of the adhesive.

Then apply the adhesive with a suitable notched trowel.

Use a trowel with a notch size that guarantees the back of the sheets of mosaic is completely wetted.

### Applying mosaic

Apply the mosaic by pressing it down or tapping it slightly to ensure good contact with the adhesive.

The open time of the adhesive at normal temperatures and levels of humidity is 20-30 minutes. In unfavourable conditions (direct sunlight, dry wind, high temperatures, etc.), or if the substrate is particularly absorbent, this time may reduce to just a few minutes.

Keep checking that skin does not form on the surface of the spread adhesive and that it remains fresh. Wetting the substrate before spreading the adhesive will help extend its open time. If skin does form on the surface, spread the adhesive again with the notched trowel. Do not wet the surface of the adhesive if skin forms. Instead of dissolving the skin, it will form a non-adhesive film.

Final adjustment of the mosaic must be carried out within 30 minutes of application. If you wait any longer it will be much more difficult.

Mosaic applied using **AS 100** must be protected from water and rain for at least 24 hours and from direct sunlight and freezing weather for at least 5 to 7 days after application.

### GROUTING AND SEALING

Grout the joints after 4 to 8 hours on walls and after 24 hours on floors using specific Mosaic+ coloured epoxy grout, available in a wide variety of colours. Seal expansion joints with specific sealant.

### SET TO FOOT TRAFFIC

Floors set to foot traffic after 24 hours.

### WAITING TIME BEFORE PUTTING INTO SERVICE

Surfaces may be put into service after approximately 14 days. Wait at least 4 weeks before filling tanks and swimming pools.

### Cleaning

Tools and containers may be cleaned with water while **AS 100** is still fresh. Clean the surfaces of the mosaic using a damp cloth before the adhesive hardens.

### CONSUMPTION

Bonding mosaics (trowel n. 4): 2 kg/m<sup>2</sup>

### PACKAGING

**AS 100** is supplied in 25 kg paper bags.

### STORAGE

**AS 100** may be stored for at least 12 months in its original packaging in a dry place.

This product complies with the prescriptions of Reg. (EC) N. 1907/2006 (REACH) – Annex XVII, item 47.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**AS 100** contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to eyes.

It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals.

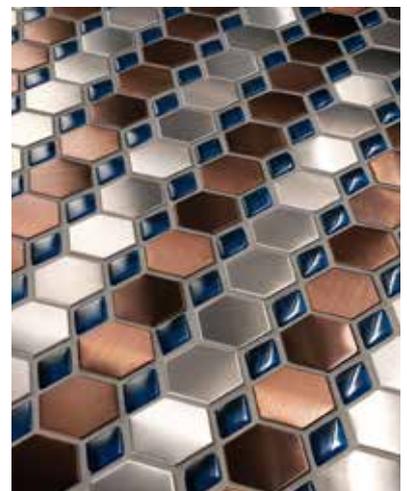
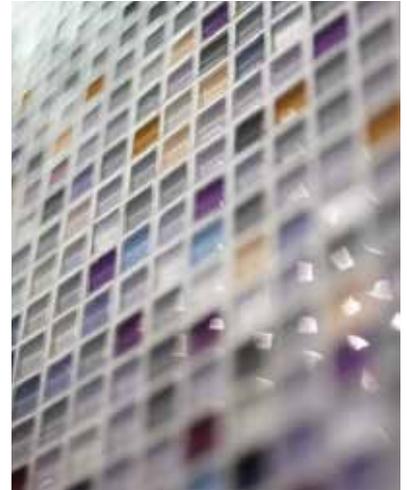
If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

### PRODUCT FOR PROFESSIONAL USE

### WARNING

*Although the technical details and recommendations contained in this data sheet correspond to the best of our knowledge and experience, all the above information must, in all cases, be taken as merely indicative and subject to confirmation after long-term, practical applications. For this reason, anyone who intends using this product must ensure beforehand that it is suitable for the envisaged application. In all cases, the user alone is fully responsible for any consequences deriving from the use of the product.*



## TECHNICAL DATA (typical values)

Complies with the following standards:

- European EN 12004 (C2TE)
- European EN 12004 (C2E S1) (mixed with AS LATEX diluted 1:1 with water)
- ISO 13007-1 (C2TE) (C2E S1 if mixed with AS LATEX diluted 1:1 with water)

## PRODUCT IDENTITY

Consistency	powder
Colour	white
Bulk density (kg/m <sup>3</sup> )	1350
Dry solids content (%)	100
EMICODE:	EC1 R Plus - very low emission

## APPLICATION DATA (at 23°C and 50% R.H.)

Mixing ratio	32-34 parts of water every 100 parts of <b>AS 100</b> , or 17 parts of water + 17 parts of <b>AS LATEX</b> every 100 parts of <b>AS 100</b>
Consistency of mix	highly creamy
Density of mix (kg/m <sup>3</sup> )	1500
pH of mix	13
Pot life of mix	approx. 8 hours
Application temperature range	from 5°C to 40°C
Open time (according to EN 1346)	> 30 minutes
Adjustment time	approx. 30 minutes
Grouting tile joints on walls	after 4-8 hours
Grouting tile joints on floors	after 24 hours
Set to foot traffic	24 hours
Waiting time before putting into service	14 days

## FINAL PERFORMANCE

Adhesion according to EN 1348 (N/mm <sup>2</sup> )	
- initial adhesion (after 28 days)	1.5
- adhesion after application of heat source	1.4
- adhesion after immersion in water	1.3
- adhesion after freeze-thaw cycles	1.4
Resistance to alkalis	excellent
Resistance to oils	excellent (poor with vegetable oils)
Resistance to solvents	excellent
Working temperature	excellent
Deformability according to EN 12004 (AS 100 + AS LATEX with water)	S1 - deformable

## TECHNICAL SPECIFICATIONS

Application of all types of mosaic using white, high performance cementitious adhesive with no vertical slip and extended open time, class C2TE according to EN 12004 (such as **AS 100** produced by Mosaico+ s.r.l.).

To apply mosaic on non-absorbent substrates and in swimming pools, mix the adhesive with latex (such as **AS LATEX** produced by Mosaico+ s.r.l.) and water to improve its deformability so that it complies with the requirements of class C2E S1 according to EN 12004.



This symbol is used to identify Mosaico+ products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



**Our Commitment To The Environment**  
Mosaico+ products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

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