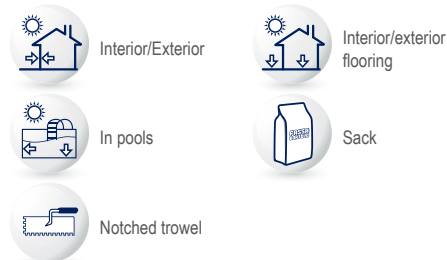
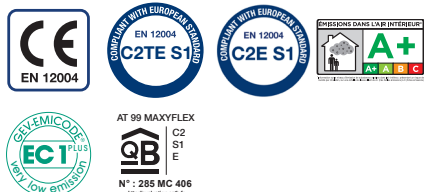


AT 99 MAXYFLEX

DATA SHEET

One-component super-adhesive with very high elasticity, extra-white and grey, for both exterior and interior floors and coverings, with variable consistency depending on the water content of the mix



Advantages

- Extra-white
- Excellent for floors and walls with heating/cooling systems
- Ideal for vitreous mosaics
- Suitable in pools
- Coverings on façades and external thermal insulation composite systems
- Large format tiles and thin slabs
- Highly deformable
- Dual consistency, thixotropic or fluid
- High wetting power
- Excellent workability
- Adhesive for thicknesses of up to 15 mm
- Applications in high-traffic areas
- Extended open time
- Resistant to vertical slippage

Composition

AT 99 MAXYFLEX is a dry premixed adhesive made from white or grey Portland cement, extra-white or grey graded sand, a high quantity of synthetic elastic resins and specific additives to improve workability and adhesion.

Supply

- special sacks with protection against moisture, approx. 25 kg

Use

AT 99 MAXYFLEX is a high-performance adhesive whose versatility makes it ideal for applying coverings of any dimensions, from the thinnest large format tiles to mosaics. AT99 MAXYFLEX mixed with the normal amount of water (approx. 29% grey, approx. 27% extra-white) is an adhesive with C2TE S1 classification. When mixed with more water it maintains high performance, with C2E S1 classification, but increases wetting power so that it can be used for floor laying without the double-spread technique. Ideal for bonding materials such as ceramic, ceramic and vitreous mosaic, clinker, gres, porcelain gres, laminated gres, terracotta, cement-based recomposed and natural stone tiles that are not sensitive to staining and moisture. Substrates include: lime, cement and gypsum base coat plaster and gauged mortars, well cured and dry cement or anhydrite floor screeds, long-standing concrete floor slabs, plasterboard, cementitious waterproof coatings and existing floors. Suitable for application on plasters and floor screeds with heating/cooling systems, on external wall thermal insulation systems, in pools and in places subject to considerable mechanical stress and vibrations.

Given the perfect compatibility of the materials, it is especially suitable for use on SA 500, E 439, FASSAFLOOR LA 8.30, SV 472 PRO, SR 450, LEGEO MIX or FASSAFLOOR THERM floor screeds, on floor screeds made using FASSACEM binder, on AQUAZIP line waterproofing products and on GYPSOTECH system plasterboards.

Substrate preparation

In general, the application surface must be cured, intact, dry, dimensionally stable, mechanically resistant. Any traces of oil, grease, wax, paints, varnishes etc. must be removed beforehand, as well as any crumbling or loose parts. In accordance with UNI 11493-1, for bonding thin tiles (≤ 5 mm), dimensional uniformity of the substrate is considered a critical factor, and therefore the substrate must be levelled and smoothed off before application where necessary.

Cementitious surfaces

It is recommended to moisten application surfaces exposed to strong sunlight, avoiding pools of water on the surface, before applying the adhesive. To level off irregular surfaces, use GAPER 3.30 or LEVEL 30 mortar. Repair deviations in height or horizontal unevenness on the inside using screeds SL 416 or SM 485, depending on the required thickness. Any cracks or recasting on horizontal surfaces will be structurally sealed using FASSA EPOXY 300 two-component epoxy resin. For floor screeds with insufficient surface resistance, evaluate the need to consolidate using PRO-MST, a product with high penetration designed specifically for this purpose; in the most extreme situations, mechanical abrasion will be required before treatment with the primer.

Concrete

The substrate must be prepared beforehand by mechanical abrasion, in order to remove any roughness, traces of dirt, loose parts, encrustations, traces of paint, cement crusts or other contaminants, so as to make the substrate slightly rough and absorbent. In the event of damaged or degraded parts, exposed reinforcing bars or voids, repair using suitable Fassa Bortolo structural mortars.

Gypsum or anhydrite surfaces

Before applying the adhesive, the surface must be treated using PRIMER DG 74. The treatment can be applied when residual moisture in the substrate is $< 0.5\%$ (0.3% on screed/plaster with heating/cooling systems).

Existing floors

Carefully map the area to make sure that the flooring is solidly fixed to the substrate. Any detached or loose parts must be removed beforehand, and the gaps filled with GAPER 3.30 or LEVEL 30. For particularly smooth substrates, mechanical abrasion is recommended, followed by vacuuming and cleaning the surface. In interiors only, the use of FASSAFLOOR PRIMERTEK ULTRA primer may be evaluated, depending on the conditions of the substrate, following suitable preparation.

For correct application, please see the technical documents for each individual product described above.

Mixing

Pour the contents of a sack into a bucket containing the amount of clean water specified in the technical data and mix using a mechanical stirrer at low speed for no longer than 3 minutes, until obtaining a fluid, uniform and smooth mixture. Then wait for 5 minutes before applying. Mix again and spread the adhesive using a notched trowel; choose the trowel depending on the type of tile being laid. In any case, during application, apply a thin first layer using the smooth side of the trowel, pressing hard on the substrate so as to ensure maximum adhesion. The mix obtained can be worked for 8 hours in normal temperature and humidity conditions; if conditions are unfavourable, pot life may vary. Do not moisten the tiles before application; only wash them in water if the back side is very dusty. The tiles are applied by moving them a little while pressing down and then tapping them carefully so that the surface is in perfect contact with the adhesive. Any re-aligning of the tiles after laying must be carried out within approx. 30 minutes. If the adhesive forms a film or "skin" on the surface, do not moisten it but rather go over it again with the notched trowel. Depending on the characteristics of the tile (weight and size) and the thickness of adhesive applied, to assist application it is recommended to use Fassa Bortolo levelling systems (NEW LEVEL TILE kit). In compliance with the UNI 11493-1 laying standard, where required, adopt a laying technique that allows you to obtain a full spread of adhesive, spot checking the complete wetting of the reverse side of the element to be bonded.



Joint sealing

For sealing joints, use FASSAFILL SMALL cementitious grout for joints from 0 to 5 mm, FASSAFILL MEDIUM for joints from 2 to 12 mm, FASSAFILL LARGE for joints from 5 to 20 mm and FASSAFILL RAPID for joints from 2 to 20 mm. If high chemical resistance is needed, use epoxy-based joint sealants such as FE 838 (for joints from 3-15 mm) or FASSAFILL EPOXY (for joints from 1-10 mm).

Seal the construction joints (expansion and perimeter joints, corners between floors and coverings, edges, etc.) using FASSASIL NTR PLUS (one-component neutral silicone sealant).

In accordance with standard UNI 11493-1, the joints may not be less than 2 mm wide; for exterior applications and in critical conditions, wider joints are recommended. In addition, the typical maximum size of the divisions for exteriors is 9-10 m² and interiors 24-25 m².

Warnings

- Product for professional use.
- Fresh adhesive should be protected from direct sun, rain and frost for at least 24 hours.
- Do not use directly on coatings or membranes made from bitumen or tar.
- Verify compatibility of the adhesive with slabs made from stone material or natural stones, applying reinforcing systems on the rear.
- Large-format elements or slabs may also require the adhesive to be applied on the reverse side of the tile or slab.
- Comply with national standards in force.

AT 99 MAXYFLEX it must be used in its original state without the addition of foreign materials.

Storage

Keep dry for a period not exceeding 12 months. Once the product has expired, it must be disposed of in accordance with the current legislation.

Quality

AT 99 MAXYFLEX is subjected to accurate and constant checks in our laboratories. The raw materials used are rigorously selected and controlled.

Technical Data

Appearance	extra-white or grey powder
Specific gravity of the powder	approx. 1,300 kg/m ³
Maximum application thickness	15 mm *
Granulometry	<0.6mm
Grey product mixing water - C2TE S1 classification	28-30%
Grey product mixing water with high wetting power - C2E S1 classification	32-34%
Extra-white product mixing water - C2TE S1 classification	26-28%
Extra-white product mixing water with high wetting power - C2E S1 classification	31-33%
Maturing time	approx. 5 minutes
Specific weight of wet mix	approx. 1,600 kg/m ³
Density of hardened adhesive	approx. 1,450 kg/m ³
pH	> 12
Pot life at +20 °C / 60% RH	approx. 8 hours
Application temperature	from +5°C to +35°C
Time for adjusting tiles at +20 °C / 60% RH	approx. 30 minutes
Waiting time before sealing the joints	approx. 1 day (varies depending on ambient conditions and water content of the mix)
Ready for normal use	7-14 days (depending on the intended use and the climatic conditions)
Compliant with standard EN 12004-1	C2TE S1 or C2E S1
Certification QB	no. 285 MC 406
* Reference value for applications with 28-30% mixing water for the grey version and 26-28% for the extra-white version	

Environmental sustainability certifications and protocols

LEED V4.1 protocol	MR Credit – Construction and Demolition Waste Management
	EQ Credit – Low-Emitting Materials
	EQ Credit – Construction Indoor Air Quality Management Plan
BREEAM protocol	HEA 02 – Indoor Air Quality
WELL v2 protocol	X01 – Material Restrictions
	X06 – Voc Restrictions
CAM protocol	2.5.1/3.2.8 – Indoor Emissions
GEV Classification	GEV EMICODE EC 1 ^{Plus} - very low emission

Performance in accordance with EN 12004 C2TES1*

Initial tensile adhesion strength (EN 1348)	≥ 1 N/mm ²
Tensile adhesion strength after water immersion (EN 1348)	≥ 1 N/mm ²
Tensile adhesion strength after heating (EN 1348)	≥ 1 N/mm ²
Tensile adhesion strength after freeze-thaw cycles (EN 1348)	≥ 1 N/mm ²
Extended open time – tensile adhesion strength (EN 1346)	≥ 0.5 N/mm ² after no less than 30 minutes
Vertical slippage (EN 1308)	≤ 0.5 mm
Transverse deformation (EN 12002)	≥ 2.5 mm and < 5 mm
* Performance obtained by mixing the grey or extra-white product with 29 or 28% water respectively	

Performance in accordance with UNI EN 12004 C2ES1 *	
Initial tensile adhesion strength (EN 1348)	$\geq 1 \text{ N/mm}^2$
Tensile adhesion strength after water immersion (EN 1348)	$\geq 1 \text{ N/mm}^2$
Tensile adhesion strength after heating (EN 1348)	$\geq 1 \text{ N/mm}^2$
Tensile adhesion strength after freeze-thaw cycles (EN 1348)	$\geq 1 \text{ N/mm}^2$
Extended open time – tensile adhesion strength (EN 1346)	$\geq 0.5 \text{ N/mm}^2$ after no less than 30 minutes
Transverse deformation (EN 12002)	$\geq 2.5 \text{ mm}$ and $< 5 \text{ mm}$
* Performance obtained by mixing the grey or extra-white product with 33 or 32% water respectively	

Do not use for	Use instead
Apply directly on anhydrite screeds	PRIMER DG 74 - AT 99 MAXYFLEX
When the building has to be declared suitable for habitation as soon as possible	RAPID MAXI S1 or RAPID MAXI S1 + FASSACOL LATEX S2
Apply directly on gypsum plasters	PRIMER DG 74 - AT 99 MAXYFLEX
Plasterboard surfaces	PRIMER DG 74 - AT 99 MAXYFLEX
Installation in situations that require a class S2 adhesive in accordance with standard UNI 11493-1	AD 8 + FASSACOL LATEX S2 or FASSACOL EASYLIGHT S2 or RAPID MAXI S1 + FASSACOL LATEX S2
Natural stone that is sensitive to moisture and stains	AX 91
Lay on wooden or metal surfaces	AX 91

Type of trowel	Estimated consumption
Square notch 6x6 mm	3-4 kg/m ²
Square notch 10x10 mm	5-6 kg/m ²
Half-moon notch 20x13 mm	approx. 6-7 kg/m ²
(*) All consumption data refer to one single spread.	

The above information refers to laboratory testing; it is possible that in practical applications on site these may differ considerably according to the conditions in which the material is applied. In any case the user must check that the product is suitable for the intended application, taking all responsibility for its use. Fassa reserves the right to make technical modifications without notice.

Technical specifications regarding the use of Fassa Bortolo products for structural or fire prevention applications will only be officially valid if provided by Fassa Bortolo's "Technical Service" and "Research, Development and Quality System". If necessary, contact Technical Service in your country of reference (IT: area.tecnica@fassabortolo.com, ES: asistencia.tecnica@fassabortolo.com, PT: assistencia.tecnica@fassabortolo.com, FR: bureau.technique@fassabortolo.fr, UK: technical.assistance@fassabortolo.com).

Please note that for the aforementioned products, the assessment is required by the appointed professional, in accordance with regulations in force.