AZ 59 FLEX

DATA SHEET

One-component adhesive with good elasticity, white and grey, for both exterior and interior floors and coatings

Interior/Exterior

Interior/exterior flooring

In pools

Sack

Notched trowel

EN 12004

EN 12004 C2TE

EN 12002 S1

A+

GEV-EMICODE EC 1 PLUS very low emission

AZ 59 FLEX C2 S1 E N° : 285 MC 405

AZ 59 FLEX C2 S1 E N° : 300 MC 405

Advantages

- Excellent workability
- Excellent for floors and walls with heating/cooling systems
- Suitable for pools and for façade coverings
- Laying large formats
- Deformable
- Extended open time
- Resistant to vertical slippage

Composition

AZ 59 FLEX is a dry premixed adhesive made from white or grey Portland cement, graded sand, a high quantity of special synthetic resins and additives to improve workability and adhesion.

Supply

- White AZ 59 FLEX: special sacks with protection against moisture, approx. 25 kg and small packs of approx. 5 kg in boxes of 5
- Grey AZ 59 FLEX: special sacks with protection against moisture, approx. 25 kg

Use

AZ 59 FLEX is applied in interiors and exteriors, on walls and floors. This adhesive is used for bonding ceramic, ceramic mosaic, clinker, gres, porcelain 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 and pools.

Given the perfect compatibility of the materials, it is especially suitable for use on SA 500, E 439, SV 472, SV 472 P, 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.

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Partner KlimaHaus CasaClima®

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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.

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 cement screeds with with insufficient surface resistance, evaluate the need to consolidate with PRO-MST, a specific product with high-penetration; 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 PRIMERTEK 101 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. Adding excess water will not improve adhesive workability, rather may create several different problems and reduce the final performance of the product. 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 Tiles must be adjusted, if necessary, within 40 minutes of application. 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 accordance with application standard UNI 11493-1, where required, spread the adhesive on both surfaces being bonded, so as to ensure full contact.

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Joints 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.
- Always consult the safety data sheet before 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.
- Comply with national standards in force.

AZ 59 FLEX it must be used in its original state without the addition of foreign materials.

Storage

- 25 kg sack: store in a dry place for no longer than 12 months.
- 5 kg sack: store in a dry place for no longer than 24 months.

Once the product has expired, it must be disposed of in accordance with current legislation.

Quality

AZ 59 FLEX is subjected to accurate and constant checks in our laboratories. The raw materials used are rigorously selected and controlled.

Technical Data

Appearance	white or grey powder
Specific gravity of the powder	approx. 1,300 kg/m³
Maximum thickness	10 mm
Granulometry	<0.6mm
Mixing water	27-29%
Maturing time	approx. 5 minutes
Specific weight of the wet mortar	1,600 kg/m³
Density of hardened adhesive	1,500 kg/m³
pH	> 12
Duration of the mix at +20°C	approx. 8 hours
Application temperature	from +5°C to +35°C
Tile adjustment time	approx. 40 minutes
Waiting time before sealing the joints	approx. 1 day
Ready for normal use	7-14 days (depending on the intended use and the climatic conditions)
Compliant with standard EN 12004-1	C2TE-S1
Certification QB	Cert. no. 285 MC 405 (Spresiano site)
	Cert. no. 300 MC 405 (Bagnasco site)

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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/mm²
Tensile adhesion strength after water immersion (EN 1348)	≥ 1 N/mm²
Tensile adhesion strength after heating (EN 1348)	≥ 1 N/mm²
Tensile adhesion strength after freeze-thaw cycles (EN 1348)	≥ 1 N/mm²
Extended open time – tensile adhesion strength (EN 1346)	≥ 0.5 N/mm² after no less than 30 minutes
Vertical slippage (EN 1308)	≤ 0.5 mm
Transverse deformation (EN 12002)	≥ 2.5 mm and < 5 mm

Do not use for	Use instead
Apply directly on anhydrite screeds	PRIMER DG 74 - AZ 59 FLEX
Apply directly on gypsum plasters	PRIMER DG 74 - AZ 59 FLEX or FASSAFIX
When the building has to be declared suitable for habitation as soon as possible	RAPID MAXI S1 or RAPID MAXI S1 + FASSACOL LATEX S2
Plasterboard surfaces	PRIMER DG 74 - AT 99 MAXYFLEX or FASSAFIX
Laying on floors or walls affected by strong movements or vibrations	AD 8 + FASSACOL LATEX S2 or AT 99 MAXYFLEX or FASSACOL EASYLIGHT S2
Natural stone that is sensitive to moisture and stains	AX 91
Lay on wooden or metal surfaces or PVC	AX 91
Thickness greater than 10 mm	AT 99 MAXYFLEX

Type of trowel	Estimated consumption
Square notch 6x6 mm	3-4 kg/m²
Square notch 10x10 mm	5-6 kg/m²
(*) 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.

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