

E 50

Normal cementitious adhesive
for the installation of ceramic tiles.



Technical features

Powder adhesive based on cements, selected graded aggregates and additives, featured by an excellent applicability and water retention, recommended for the indoor and outdoor installation on traditional cementitious substrates, such as cementitious screeds and renders.

Classification according to EN 12004, class C1.

Applications

Installation of single and double fired wall and floor porous ceramic tiles.

Important warnings

Do not use in the following cases:

- On substrates subject to strains or thermal and mechanical stresses use ADEBOND + LATEX EL 300 or ADEFLEX T or ADEFLEX LIGHT S2.
- On heated floors (use ADEBOND + LATEX EL 300).
- For the installation of marble and natural stones (use EXTRA 40 RAPIDO, for light marbles always use white adhesive).
- On plaster board walls (use ADESINT).
- On metal, PVC, rubber or linoleum surfaces (use ADEFLEX T).
- When a good resistance to chemicals is required: swimming-pools, laboratories, cattle sheds, dairies, etc. (use ADESILAT).
- Installation of ceramic tiles on ceramic.
- For the installation of tiles or natural stones requiring a thickness over 5 mm (use EXTRA 30 MAXI).
- Whenever the floor must be ready for traffic quickly (use EXTRA 40 RAPIDO or ADEPROOF RAPIDO).
- For the installation of non-absorbent ceramic tiles.
- For the installation of large sizes (use EXTRA 30 MAXI or ADEBOND + LATEX EL 300 or ADEFLEX LIGHT S2).
- On prefabricated or cast concrete structures.
- On walls or floors subject to significant movements or vibrations.
- For the installation on gypsum walls, ready gypsum-based renders and anhydrite screeds, apply a coat of PRIMER GS before the adhesive.

Mix preparation

Mix 6.5-7 l of clean water with a 25 kg bag, preferably by mechanical stirrer with low speed, till getting a smooth and clogless mix with the wished viscosity. The mix must then rest for 10 minutes, stirring it shortly again before using it. The adhesive prepared in this way has a use time of over 6 hours.

Substrate preparation

Cementitious screeds: the surfaces must be free of stagnant water before the installation. Traditional cementitious substrates must be suitably cured (28 days at a temperature of +23°C and R.H. 50%). Screeds prepared with STARCEM or STARCEM PRONTO must be made at least 48 hours before the installation (see technical sheets). Substrates must be flat, dimensionally and mechanically solid, suitably resistant according to the final use, without crumbling parts and oils, paints, waxes and anti-adhesive materials. Substrates must be sufficiently dry: the adhesive can set more slowly with damp.

Render: renders must be cured for at least one week for every thickness cm. Substrates must be flat, dimensionally and mechanically solid, suitably resistant according to the final use, without crumbling parts and oils, paints, waxes and anti-adhesive materials. Substrates must be sufficiently dry: the adhesive can set more slowly with damp. Note: gypsum or anhydrite substrates must be dry (residual moisture below 0.5%), sufficiently resistant, with suitable surface (otherwise sand/roughen them), free of dust and treated with PRIMER GS.

Tile application

For a correct application of E 50 initially apply a first coat of adhesive with a smooth squeegee, then apply the adhesive with a notched trowel suitable for the thickness to be obtained, for the substrate roughness and for the tile type to be applied. After installing the tile, press carefully, so that its back side is completely wetted. Special weather conditions, such as strong wind, high temperatures, beating sun or very absorbing substrates can significantly reduce the open and adjustment time to a few minutes. It is recommended to dampen the substrate before applying the adhesive to reduce this problem. Anyway, before the installation check if the adhesive has formed a film. In this case, spread again the adhesive to re-activate the bonding. Absolutely avoid pouring water on the adhesive already forming a film, as this would form an anti-adhesive coat. On outdoor floors or walls, in particular when the tile back side is structured or "dovetail" type (klinker, terracotta, etc.), spread the adhesive also on the tile back side so as to avoid cavities where water can penetrate or where condensate moisture can form, as this could cause detaching or breaking in case of frost.

Grouting

Tiles can be grouted after 4-8 hours on the walls and after 24-36 hours on the floors.

For this purpose, and depending on the thickness, it is recommended to use ADESITAL joint sealants:

- FUGAMAGICA 0-4 for wall grouting with joints smaller than 2 mm, with a fine finishing.
- FUGAMAGICA 0-6 BIO for wall water-repellent grouting with joints smaller than 6 mm, with a smooth finishing.
- FUGAMAGICA 2-12 for wall and floor grouting with joints from 2 to 12 mm, with a medium finishing.
- FUGAMAGICA 3-20 BIO for wall and floor grouting with joints from 3 to 20 mm, with a coarse finishing.
- ADEPOXY two-component acid-resistant epoxy grout for wall and floor grouting with min. 3-mm wide joints.
- ADEPOXY ARREDO two-component decorating epoxy grout for wall and floor grouting with min. 2-mm wide joints.
- If higher resistance, deformability and waterproofing are required, totally replace the water with the latex IMPER 21 mixed with the FUGAMAGICA sealants.
- Flexible expansion joints must be made with ADESIL AD for ceramic and SP 308 for natural stones (see technical sheets). Expansion joints on floors subject to heavy traffic must be made with SILFLEX P.

Specifications

Ceramic floor and wall tiles shall be installed with a single component, cement-based powder adhesive of class C1, e.g. E 50 by ADESITAL S.p.A., for thickness up to 5 mm. For indoor and outdoor applications.

Technical data (at +23°C and 50% R.H.)	
Appearance	powder
Colour	grey and white
Powder volume mass	1.3 g/cm ³
Solid residue	100%
Storage	12 months in the original packaging and in a dry place
Safety	irritant Please check the information on the package and on the safety sheet.
inflammability	no
Customs item	3824 5090
Application data	
Mixing ratio	6.5-7 l of water every 25 kg
Mix volume mass	1.4 g/cm ³
Mix pH	> 12
Pot life	6-8 hours
Application temperature	from +5°C to +35°C
Open time	> 15 minutes
Adjustment time	45 minutes
Ready for traffic	after 24 hours
Wall grouting	after 3-6 hours
Floor grouting	after 24-36 hours
Final hardening	after 14 days
Final performance	
Initial adhesion	1.0 N/mm ²
Adhesion after heating	0.65 N/mm ²
Adhesion after immersion in water	0.60 N/mm ²
Adhesion after frost-thaw cycles	0.60 N/mm ²
Deformability	not deformable
Resistance to humidity	excellent
Resistance to aging	excellent
Resistance to solvents and oils	good
Resistance to acids and alkali	poor
Coverage	2.5-5 kg/m ²
E 50 grey and white packages	25 kg bag/4x5 kg box

Warning: The above indications and rules correspond to our best experience, but shall be deemed as merely indicative and shall be confirmed by exhaustive practical tests; thus, before using the product, the operator shall determine if it is suitable for its intended use and shall undertake every responsibility resulting from its use. PROFESSIONAL USE ONLY

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