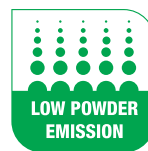


# ADEFLEX GREEN S2

Single-component, lightened cementitious adhesive, highly deformable S2, with technology combining very high performance and easy spreadability with reduced dust formation while preparing the mix.



## Technical features

It is a new generation highly performing adhesive.

It is a grey powder, composed of synthetic resins, concrete, selected graded sands, light micro-spheres from recycling processes and special additives. Mixed with water only, it turns into a grout with the following features:

- ADEFLEX GREEN S2 features a technology combining very high deformability and reduced formation of dust during the mix preparation.
- Extremely light: the light inerts contained in ADEFLEX GREEN S2 achieve products that are much lighter and with higher coverage compared with the traditional Adesital adhesives (one 15 kg bag has a coverage/square meter equivalent to one 25 kg bag of a traditional adhesive).
- Lighter to transport (15 kg bags); lighter in the application, lower load on the structures; faster to mix with a lower mixer effort.
- Reduced transport cost, 900 kg pallet instead of 1500 kg pallet (for the same volume).
- Eco-sustainable: more than 30% in weight of materials from recycling processes.
- Top deformability: (classified S2 according to the European Norm EN 12004); excellent capacity of meeting the substrate and tile movements.
- Classification C2TE-S2 according to the European Norm EN 12004: perfect bonding with all ceramic materials and with almost all substrates commonly used in the building sector under any condition (C2). High thixotropy: null tile slip (T). Tiles can be installed downwards, diagonally and with wide joints without using crosses nor shims. Very long open time and adjustment time to make the application easier (E). Highly deformable (S2)

- High smoothness and creamy consistency, easy and light to spread, with reduced fatigue.
- Excellent distribution and coverage of the tile back sides even with large sized and thin slabs: no gaps under the tiles, no seepage.
- For indoor and outdoor use.
- It improves noise decreasing.
- Single-component: the above described outstanding features are achieved by mixing it with water only without adding resins or liquid additives.

## Applications

- Indoor and outdoor installation of every type of ceramic material (porcelain stoneware, double firing, single firing, klinker).
- Installation of thin slabs in porcelain stoneware.
- Indoor and outdoor installation of stone materials (if solid and humidity-proof).
- Installation of ceramic tiles on heating floors and cementitious renders.
- Spot bonding of insulating and/or sound-absorbing materials such as foam polyurethane and polystyrene, rock or glass wool, cork.
- Installation of floors with heavy traffic.
- Installation on deformable substrates: gypsum board, asbestos cement, marine-type plywood, wood composition panels (solid to water and not treated) and when it is necessary to reduce the load on the bearing structures.
- Installation of ceramic and solid stone material on facades, balconies, terraces and sun stone pavements, subject to direct sun rays and sudden temperature changes.
- Installation on prefabricated concrete walls and on cured concrete substrates.
- Installation of ceramic tiles on ceramic, stone material and terrazzo tiles (suitably prepared).
- Installation of wall and floor ceramic tiles on substrates water-proofed by ADEPROOF membranes.

## Important warnings

Do not use in the following cases:

- On metal, PVC, rubber or linoleum (use ADEFLEX T).
- With natural stones and marble slabs subject to efflorescence or stains (use ADEFLEX T or EXTRA 40 RAPIDO).
- With natural stone material or aggregate slabs subject to damp movements (use ADEFLEX T).
- For the installation of thin slabs in porcelain stoneware with reinforcing mesh on the back side.
- Whenever the floor must be ready for traffic quickly (use EXTRA 40 RAPIDO or ADEPROOF RAPIDO).
- On ready-to-use gypsum-based renders (use ADESINT).
- On concrete with stripper or subject to high shrinkage.

Comply with the provisions of Norm UNI 11493 point 7.13.7 for the installation of outdoor wall tiling.

For the installation on gypsum walls, ready gypsum-based renders and previously prepared anhydrite screeds, apply a coat of PRIMER GS before the adhesive.

Please see Norm UNI 11493 and/or contact our technical service department for any topic not treated herein.

## Mix preparation

Mix 5.9-6.2 l of clean water with a 15 kg bag of ADEFLEX GREEN S2, by mechanical stirrer with low speed, till getting a smooth and clogless mix; the mix must then rest for about 5 minutes, stirring it shortly again before using it.

## Substrate preparation

The substrate for the tiling must comply with the requirements of aging, integrity, mechanical and surface resistance, dimensional regularity, humidity and absence of contaminating agents according to Norm UNI 11493 sect. 7.3 when the adhesive is applied.

**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. Such substrates must anyway comply with the requirements of Norm UNI 11493 point 7.6.

**Renderers:** plasters must have cured for at least one week for each cm of thickness. 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. Such substrates must anyway comply with the requirements of Norm UNI 11493 point 7.6.

**Installation on existing tiles:** in case of overlapping on existing ceramic tiles, check they are properly bonded; clean and prepare the surface of the old floor carefully by a first washing with a suitable basic detergent, then wash with ADESIT CLEAN. Remove mechanically all loose parts and materials not enabling a proper bonding. For outdoor installation on existing ceramic floors, also treat the surface with ADEGRIP ECO besides following the instructions above.

Note: gypsum board substrates must be suitable for the application of ceramic wall tiles with cementitious adhesives; they must be resistant, with a suitable surface and free of any contaminating agent on the installation surface. Such substrates must anyway comply with the requirements of Norm UNI 11493 point 7.6.2 (see annex D; schedule D.6)

## Tile application

For a correct application of ADEFLEX GREEN S2 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 with large sized and/or thin slabs and 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. The installation must always comply with Norm UNI 11493.

## 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 4 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

Indoor and outdoor floor and wall tiles shall be installed with a single-component, mixed binder, lightened powder adhesive, highly performing and deformable, with reduced dust emission while mixing, with high coverage, of class C2TE-S2 (according to the norm EN 12004) type ADEFLEX GREEN S2 by ADESITAL S.p.A.

**Technical data** (at +23°C and 50% R.H.)

Appearance	powder
Colour	white and grey
Powder volume mass	0.85 g/cm <sup>3</sup>
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.
Flammability	no
Customs item	3824 5090/0

**Application data**

Mixing ratio	5.9-6.2 l of water with a 15 kg bag
Pot life	8 hours
Application temperature	from +5°C to +35°C
Pot life	over 8 hours
Mix pH	> 12
Open time	> 30 minutes
Adjustment time	> 20 minutes
Ready for traffic	after 24 hours
Wall grouting	after 4-8 hours
Floor grouting	after 24 hours
Final hardening	14 days

**Final performance**

Initial adhesion	> 2 N/mm <sup>2</sup>
Adhesion after heating	> 2 N/mm <sup>2</sup>
Adhesion after immersion in water	> 1 N/mm <sup>2</sup>
Adhesion after frost-thaw cycles	> 1 N/mm <sup>2</sup>
Deformability according to EN 12004	> 5 mm (S2, highly deformable)
Resistance to humidity	excellent
Resistance to aging	excellent
Resistance to solvents and alkali	good
Resistance to acids	poor

**Coverage** 0.8 kg/m<sup>2</sup> every mm of thickness

**Packages**

**ADEFLEX GREEN S2** 15 kg bag

**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.