Technical Datasheet

ISOMAT AK-20

High-performance, flexible, polymer-modified adhesive for all tile types, even on critical substrates

Description

ISOMAT AK-20 is a high-performance, flexible, polymer-modified, cement-based tile adhesive with extended open time and no vertical slip. Provides high initial and final adhesion strength, moisture resistance and flexibility. Formulated with specially selected aggregates and additives, it ensures outstanding workability and ease of application. Furthermore, its advanced formulation allows for thicker adhesive beds that remain stable during tile installation, making it ideal when dealing with uneven substrates.
Certified according to EN 12004 and classified as type C2 TE S1 adhesive. CE marked.
ISOMAT AK-20 has received an Environmental Product Declaration (EPD) following an assessment of its life-cycle environmental impacts. Registration No: EPD-IES-0006170, The International EPD® System.

Fields of application

ISOMAT AK-20 is suitable for fixing absorbent or non-absorbent wall and floor tiles (e.g. “grès porcellanato”), natural stone, decorative bricks, large-format tiles, etc. to a variety of substrates, especially where high adhesion, flexibility and moisture resistance are required (e.g. old tile layers, heated floors, gypsum boards, etc.). Suitable for indoor and outdoor use.

Technical data

Form:	cementitious powder
Colors:	grey, white
Water demand:	7.50-8.00 l/25 kg bag
Application temperature:	from +5°C to +35°C
Application thickness:	up to 15 mm
Pot life:	at least 6 h
Open time:	at least 30 min
Minor adjustments open time:	at least 30 min
Slip:	≤ 0.5 mm
Wall grouting:	after 3-8 h
Floor grouting:	after 24 h
Adhesion strength after:	
• 28 days:	≥ 1.80 N/mm^2
• heating at +70°C:	≥ 1.60 N/mm^2
• immersion in water:	≥ 1.30 N/mm^2
• 25 freeze-thaw cycles:	≥ 1.40 N/mm^2
Service temperature:	from -30°C to +90°C
Deformability: (EN 12004-2)	> 2.5 mm

All measurements were conducted according to EN 12004-2.

Directions for use

1. Substrate
The surface to be overlaid must be clean, free of dust, grease, paint, loose material, etc. Dampening the substrate before application is recommended.

2. Application
ISOMAT AK-20 is gradually added to water under continuous stirring until a uniform paste is formed. A low-speed mixer is recommended for mixing.
The mixture should be left to sit for approx. 5 min and then stirred again. The tile adhesive should be uniformly spread (“combed”) over the entire surface using a notched trowel. The tiles should be firmly fixed to the desired position.
The applied mixture must be covered with tiles within 30 minutes to avoid “skin” formation, i.e. before the adhesive film starts setting.

Consumption

1.5-4.0 kg/m^2, depending on trowel notch size and substrate type.

Packaging

ISOMAT AK-20 is supplied in 15 kg, 20 kg and 25 kg paper bags and in 5 kg plastic bags.

ISOMAT AK-20

Shelf life – Storage

- Paper bags of 25 kg, 20 kg and 15 kg:
  12 months from production date.
- Plastic bags of 5 kg:
  18 months from production date.

All of the above are in effect if the product is stored in its original, unopened packaging, in cool and dry conditions.

Remarks

- Due to cement content, ISOMAT AK-20 reacts with moisture, forming alkaline solutions, and thus is classified as irritant.
- Very porous surfaces such as aerated concrete, gypsum boards, chipboards, etc. must be primed first with UNI-PRIMER acrylic primer.
- Please consult the directions for safe use and precautions written on the packaging before use.

ISOMAT AK-20 GREY

CE

ISOMAT S.A.
17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag Athanasios, Greece

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EN 12004:2007+A1:2012
DoP No.: ISOMAT AK-20 GREY/1003-02
NB: 2032

Improved deformable cementitious adhesive with reduced slip and extended open time, for internal and external tiling.

Reaction to fire	Class E
Release of dangerous substances	See MSDS
Bond strength, as:	
- initial tensile adhesion strength	≥ 1 N/mm^2
Durability, for	
- tensile adhesion strength after heat ageing	≥ 1 N/mm^2
- tensile adhesion strength after water immersion	≥ 1 N/mm^2
- tensile adhesion strength after freeze thaw cycles	≥ 1 N/mm^2

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Research and Development Department of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore, the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 25.09.2025

ISOMAT AK-20

ISOMAT AK-20 WHITE

CE
ISOMAT S.A. 17th km Thessaloniki – Ag. Athanasios P.O. BOX 1043, 570 03 Ag Athanasios, Greece 08
EN 12004:2007+A1:2012 **DoP No.: ISOMAT AK-20 WHITE/1004-02** **NB: 2032** Improved deformable cementitious adhesive with reduced slip and extended open time, for internal and external tiling.

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ISOMAT S.A.
BUILDING CHEMICALS, MORTARS & PAINTS
HEADQUARTERS – THESSALONIKI, GREECE
17th km Thessaloniki – Ag. Athanasios Road
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece
T +30 2310 576000
www.isomat.eu e-mail: support@isomat.eu

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