

# AD 531 MAX

**Flexible cement adhesive, for the gluing of large-format wall tiles and floor tiles, with increased binding force and lateral deformation, and with high resistance to efflorescence.**



Highly flexible adhesive with an extended open time, for the gluing of all types of ceramic wall tiles and floor tiles, including large-format tiles ( $\geq 60 \times 60$  cm,  $60 \times 30$  cm), in internal and external environments.

#### DECLARATION:

Improved, deformable cement adhesive with reduced slip and extended withering time, type/class C2TES1 according to EN 12004+A1.

#### APPLICATION:

For the gluing of all types of ceramic wall and floor tiles in internal and external environments, including materials with an extremely low absorption capacity (such as highly vitrified floor tiles, group Bla, with water absorption under 0.5% (Kentaur, Taurus), and panels from natural stone.

For the gluing on difficult to tile bases (old floor tiles, concrete prefabricated elements, cast reinforce concrete, and the like).

Also for the gluing on bases where dimensional changes occur due to excessive thermal stress (such as heated ceramic floors, up to the maximum temperature of  $+70^{\circ}\text{C}$ , or sunny sides of terraces).

**Deflection (lateral deformation)  $\geq 2.5$  mm and  $< 5$  mm.**

The adhesive is suitable for use in areas permanently exposed to running or high-pressure water (swimming pools, paddling pools, ponds), and it is part of the RAKO SYSTEM system solution – SWIMMING POOLS.

Due to its high resistance to efflorescence, it is suitable for use in areas permanently exposed to moisture (façades, subways, underground collectors, and structures).

This adhesive is also suitable for tiles stressed by traversing of forklift trucks, cars, and the like, with a total weight of up to 3.5 t.

The adhesive is characterized with simple processing, reduced slip, longer open time, high stability and strength, frost resistance, and flexibility.

#### COMPOSITION:

Aggregates, cement, redispersible polymer and other additives improving processing and end-use properties of adhesive.

#### TECHNICAL PARAMETERS:

MANDATORY			
Practical application:	indoor or outdoor installation of tiles on walls or floors		
High initial tensile adhesion strength <sup>1)</sup>	min. 1.5 MPa *)	Reaction to fire	Class A1/A1 <sub>f</sub>
High tensile adhesion strength - after immersion in water <sup>1)</sup>	min. 1.2 MPa *)	Release of dangerous substances	see the Safety Data Sheet
		Slip	max. 0.5 mm
- after heat ageing <sup>1)</sup>	min. 1.5 MPa *)	Extended withering time (open time): - tensile adhesion strength min. after 30 min	min. 0.5 MPa
- after freeze-thaw cycle <sup>1)</sup>	min. 1.5 MPa *)	Deformable adhesive: - deflection (lateral deformation S1)	$\geq 2.5$ mm and $< 5$ mm
<sup>1)</sup>	EN 12004+A1 requirement $\geq 1.0$ MPa		
<sup>*)</sup>	measured values		

### TECHNICAL DATA SHEET

#### INFORMATIVE

Granularity		0-0.7 mm
Amount of mixing water *):	per 1 kg of dry mixture	0.26-0.30 l/kg
	per 1 bag (25 kg)	6.5-7.5 l
Spreading capacity		approx. 1200 kg/m <sup>3</sup>
Pot life		approx. 3-4 hours

Approximate coverage:	small mosaic up to 50 mm	tooth height 3-4 mm	approx. 1.5-2.0 kg/m <sup>2</sup>
	wall and floor tiles 100-250 mm	tooth height 6-8 mm	approx. 3.0-4.0 kg/m <sup>2</sup>
	floor tiles above 300 mm	tooth height 8-12 mm	approx. 4.0-6.0 kg/m <sup>2</sup>

NOTE: The technical parameters are determined under standard conditions (23 ± 2)°C and (50 ± 5)% relative air humidity.

\*) Based on the application conditions, the processor is responsible for choosing the right amount of mixing water in the recommended range.

#### BASE PREPARATION:

The base must be supportive, clean, mature, level, solid, free of dust, fat and other impurities, and it must not be frozen. In order to decrease the absorption capacity of the base, and to improve adhesion, use the penetration coating **PE 201** or the **PE 202** contact bridge **PE 204** (for application, see the Technical Data Sheets of the relevant materials). Ceramic materials can be laid on the base treated in this way after 1 day.

#### PROCESSING:

Pour the dry mixture evenly into the prescribed amount of water and stir thoroughly with a high-speed mixer in order to create a smooth and compact material. Leave the mixture for appr. 5 minutes, and stir-up again shortly. Apply the adhesive on a base using the toothed smoother in such a way that the smoother forms an angle of 60–70° with the base. Lay the tiles on a surface prepared in this way until the time specified as the open time. If this time is exceeded, the tiles should not be laid on this adhesive (the adhesive must be removed).

When gluing of large-format floor tiles, or gluing on uneven surfaces, apply the adhesive in a thin layer also on back sides of tiles, using the straight edge of a smoother.

Jointing is to be done after a sufficient maturity of adhesive – wall tiles are to be jointed after 1 day, floor tiles after 2-3 days, or longer time if the wall tiles are laid on non-absorbent bases. The full load is possible after 7 days.

**Cleaning:** The fresh adhesive should be removed from the tiles before setting, using a foam rubber, and wash with clean water. The hardened adhesive should be mechanically removed. Thinner layers can be removed using the special cleaning agent **CL 802**.

#### CAUTION:

- The general rules specified in ČSN 73 3451 should be followed in designing and laying of ceramic tiles.
- Drinkable water or water corresponding to EN 1008 must be used for mixing the mixture.
- Additional adding of binders, aggregates, and other additives, or screening of mixture, is inadmissible.
- The mixture can be processed only under the air and base temperature over +5°C (max. +30°C, higher temperatures shorten the open time)! The work cannot be done if frost is expected.
- Unused residues should be mixed with water and left to harden - they can be disposed as of building wastes; contaminated containers should be disposed as of hazardous wastes (see the Safety Data Sheet).
- Only completely emptied and clean packaging may be handed over to recycling.

**FIRST AID, SAFETY AND HYGIENE REGULATIONS:** See the Product Safety Data Sheet.

**STORAGE:** The product should be stored in original containers - protected from damage, action of water, and high relative air humidity. If the storage conditions are met, the shelf life will be 12 months. The expiration date is specified on packaging.

**SHIPPING:** The dry mixture is delivered in paper bags (25 kg) on pallets covered with foil.

#### QUALITY:

- The product quality is regularly checked in the manufacturer's laboratories.
- In production, the product control system and certified quality management system are applied according to ISO 9001.
- Continuous surveillance and proving the product conformity (if necessary) is ensured by TZÚS Praha, OS 1020.

**DISTRIBUTOR:** LASSELSBERGER, s.r.o., Adelova 2549/1, 320 00 Plzeň – Jižní Předměstí, Czech Republic

**VALIDITY:** Since 1 November 2016

We reserve the right to make any changes that are results of technical progress. This issue cancels and supersedes all previous issues.

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The company is registered in the Companies Register, administered by the Regional Court in Plzeň, Section C, File 22719