

High performance cementitious adhesive with no vertical slip and extended open time for ceramic tiles and stone materials

# CLASSIFICATION IN COMPLIANCE WITH EN 12004

**Adesilex P9** is an improved (2) slip resistant (T) cementitious adhesive (C) with extended open time (E) classified as C2TE.

Conformity of Adesilex P9 is declared in ITT certificate n° 25050141/Gi (TUM) and n° 25080230/Gi (TUM) issued by the Technische Universität München laboratory (Germany) and in ITT certificates n° 1220.1/10/R03 NPU; 1220.3/10/R03 NPU; 1220.2/10/R03 NPU and 1220.4/10/R03 NPU issued by the ITB Katowice Institute (Poland).

# WHERE TO USE

Interior and exterior bonding of ceramic tiles and mosaics on floors, walls and ceilings. Also suitable for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, sound-deadening panels, etc.

## Some application examples

- Bonding ceramic tiles and mosaics on the following substrates:
  - conventional renders or cementitious mortar walls;
- interior aerated concrete block walls;
- gypsum or anhydrite after having first applied Primer G;
- gypsum board;
- underfloor heating installations;
- cementitious screeds, as long as they are sufficiently cured and dry;
- interior painted walls, as long as the paint is firmly anchored.







single-fired tile on floor



Spreading Adesilex P9



Installation of single-fired tile on gypsum board wall

- Tile on tile of existing flooring with both ceramic and natural stone tiles, as long as they are well bonded to the substrate and have no cracks.
- Bonding small sized tiles in swimming pools and basins.

#### **TECHNICAL CHARACTERISTICS**

Adesilex P9 is a grey or white powder composed of cement, fine-aggregates, synthetic resins and special additives, developed in the MAPEI Research and Development Laboratories.

**Adesilex P9** white is an ultra white powder with excellent workability.

A mortar with the following properties is obtained when mixed with water:

- · easily workable;
- highly thixotropic; Adesilex P9 can be applied on a vertical surface without slumping or slipping even when heavy tiles are used:
- perfect adherence to all materials normally used in building;
- hardens with minimal shrinkage;
- extended open time.

#### **RECOMMENDATIONS**

Do not use Adesilex P9:

- on precoat and poured concrete walls;
- on walls or floors subject to extreme flexing or vibration (wood, fibre-cement, etc.);
- on metal surfaces.

# APPLICATION PROCEDURE Preparing the substrate

All substrates that receive **Adesilex P9** must be flat, sound, free of loose debris, grease, oils, paints, wax, etc.

Cementitious substrates should not continue to shrink after the installation of the ceramic tiles, therefore during spring and summer, renders must cure at least 1 week per cm of thickness and cementitious screeds must be cured at least 28 days, unless special MAPEI binders for screeds such as Mapecem, Mapecem Pronto, Topcem or Topcem Pronto have been used.

Dampen surfaces with water to cool down if they are too warm or exposed to direct sunlight.

Gypsum substrates and anhydrite screeds must be perfectly dry, sufficiently hardened and free from dust. It is absolutely essential that they are treated with **Primer G** or **Eco Prim T**.

#### Preparing the mix

Mix Adesilex P9 with clean water until a smooth, lump-free paste is obtained. Leave to rest approximately 5 minutes and re-stir. Use 29-31 parts of water for every 100 parts by weight of Adesilex P9 grey, which is equal to 7.3-8 litres of water for every 25 kg of Adesilex P9 grey and 31-33 parts of water for every 100 parts by weight of Adesilex P9 white, which is equal to 7.8-8.3 litres of water for every 25 kg of Adesilex P9 white. Mixed this way, Adesilex P9 has a pot life of approximately 8 hours.

## **Applying the mix**

Adesilex P9 is applied to the substrate using a notched trowel. Choose a trowel in order to

wet the adhesive 65-70% of the back of the tile for internal walls and light traffic areas and 100% for heavy traffic areas and all external works.

To obtain good adhesion, firstly spread a thin layer of **Adesilex P9** on the substrate using the straight edge of the trowel. Immediately after, apply the necessary thickness of **Adesilex P9** using a suitable notched trowel, depending on the type and size of the tiles (see "Consumption").

For external ceramic tile floors and walls and when applying in swimming pools and basins filled with water, spread the adhesive on the back of the tile (back-buttering) in order to ensure complete contact.

#### Installing the tiles

There is no need to wet the tiles before installing them. Only with very dusty backs it is recommended to dip the tiles in clean water. Tiles should be installed with a firm pressure to ensure good contact with the adhesive. In normal temperature and humidity conditions, the open time of **Adesilex P9** is approximately 30 minutes. Unfavourable weather conditions (strong sun, wind, high temperatures, etc.) or a highly absorbent substrate can reduce the open time even to just a few minutes.

It is therefore necessary to carefully check in order to ensure that a skin does not form on the surface of the spread adhesive, which should stay fresh. If not, remove the adhesive and apply fresh material with a notched trowel. It is not recommended to wet the adhesive with water once a skin has formed because, instead of dissolving the skin, the water will form an anti-adhesive film.

If necessary, tiles should be adjusted within 45 minutes of installation.

Tiling installed with **Adesilex P9** must not be washed or exposed to rain for at least 24 hours and must be protected from frost and strong sun for at least 5-7 days.

#### **GROUTING AND SEALING**

Wall joints can be grouted after 4-8 hours and floor joints can be grouted after 24 hours with the relevant MAPEI cementitious or epoxy grouts, available in different colours. Expansion joints must be sealed with the relevant MAPEI sealants.

# **Spot-bonding insulating materials**

For spot-bonding, sound-deadening or insulating panels, apply **Adesilex P9** with a trowel or a float.

#### **SET TO LIGHT FOOT TRAFFIC**

Floors are set to light foot traffic after approximately 24 hours.

#### **READY FOR USE**

Surfaces are ready for use after approximately 14 days. Basins and swimming pools can be filled after 21 days.

#### Cleaning

Tools and containers should be cleaned with plenty of water while **Adesilex P9** is still fresh. Surfaces should be cleaned with a damp cloth, before the adhesive dries.

TECHNICAL DATA (typical values) In compliance with:	– European EN 12004 as C2TE – ISO 13007-1 as C2TE
PRODUCT IDENTITY	
Туре:	powder
Colour:	white or grey
Bulk density (kg/m³):	1,300
Dry solids content (%):	100
EMICODE:	EC1 R Plus - very low emission
APPLICATION DATA (at +23°C and 50% R.H.)	
Mixing ratio:	100 parts of <b>Adesilex P9</b> with 29-31 parts of water by weight for <b>Adesilex P9</b> grey and 31-33 parts of water by weight for <b>Adesilex P9</b> white
Consistency of mix:	pasty
Density of the mix (kg/m³):	1,500
pH of mix:	13
Pot life of mix:	over 8 hours
Application temperature:	from +5°C to +40°C
Open time (according to EN 1346):	30 minutes
Adjustability time:	45 minutes
Ready for grouting on walls:	after 4-8 hours depending on absorbency
Ready for grouting on floors:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days
FINAL PERFORMANCES	
Bonding strength in compliance with EN 1348 (N/mm²):  - initial bonding after 28 days:  - bonding after heat exposure:  - bonding after immersion in water:  - bonding after freeze/thaw cycles:	1.5 1.4 1.1 1.5
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor for vegetable oils)
Resistance to solvents:	excellent
Temperature when in use:	from -30°C to +90°C

# Adesilex P9





#### CONSUMPTION

# **Bonding ceramic tiles**

- Mosaics and small sizes in general

2 kg/m<sup>2</sup> (trowel n. 4):

- Normal sizes

(trowel n. 5): 2.5-3 kg/m<sup>2</sup>

- Large sizes, exterior

floors (trowel n. 6): 5 kg/m<sup>2</sup>.

#### **Spot-bonding insulating material**

- Foam, etc. approx. 0.5-0.8 kg/m<sup>2</sup>

- Gypsum board panels,

foamed concrete: approx. 1.5 kg/m<sup>2</sup>.

## **PACKAGING**

Adesilex P9 is available in 25 kg bags and cardboard boxes containing 4 x 5 kg Alupacks.

#### **STORAGE**

Adesilex P9 can be stored 12 months in a normal environment in original packaging. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH) - All. XVII, item 47.

## **SAFETY INSTRUCTIONS FOR** PREPARATION AND APPLICATION

Adesilex P9 contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to eyes. When applying the product use protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data

PRODUCT FOR PROFESSIONAL USE.

#### **WARNING**

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Sheet.

Although the technical details and

recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

#### **LEGAL NOTICE**

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



Our Commitment To The Environment MAPEI products assist Project Designers

and Contractors create innovative LEED
(The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

**All relevant references** for the product are available upon request and from www.mapei.com

