### **ADESILEX P10**

High-performance white cementitious adhesive with no vertical slip and extended open time for glass, ceramic and marble mosaic coverings









#### **CLASSIFICATION IN COMPLIANCE WITH ISO 13007-1**

Adesilex P10 is an improved (2) slip-resistant (T) cementitious adhesive (C) with extended open time (E) of class C2TE.

#### WHERE TO USE

Interior and exterior floor and wall bonding of:

· installation of normal or heavy weight mesh backed or paper faced glass, ceramic and marble mosaic.

#### Some application examples

#### Adesilex P10:

- · Bonding of ceramic, glass and marble mosaic on cementitious renders, from the top towards the bottom.
- · Bonding mosaic on non-planar substrates, without tiles slipping.
- $\cdot \ \, \text{Bonding mosaic on gypsum board panels after first priming with the appropriate MAPEI primer.}$

#### Adesilex P10 mixed with Isolastic 50 or Isolastic diluted 1:1 with water:

- · Bonding mosaic in swimming pools on renders or on substrates waterproofed with Mapelastic or Mapelastic Smart.
- · Internal bonding of mosaic on existing ceramic tiles.
- $\cdot$  Bonding small sized ceramic tiles (not larger than 300 cm<sup>2</sup>) on renders in swimming pools.

#### TECHNICAL CHARACTERISTICS

**Adesilex P10** is a particularly fine white powder composed of cement, graded aggregates, synthetic resins and special additives according to a formulation developed in MAPEI's Research Laboratories.

Adesilex P10 mixed with the correct amount of water or Isolastic becomes a mortar with the following features:

- · white in colour. It enhances the colours of glass mosaic tiles;
- · a creamy paste which is easily workable;
- · excellent adhesion to all conventional materials used in building;
- · particularly extended open and adjustability time, making installation easier.
- · highly thixotropic: **Adesilex P10** (when mixed with water only) can be applied on a vertical surface without sagging or slipping even when heavy tiles are used. Mosaic tiles can be installed from the top towards the bottom without using spacer pegs.

#### **RECOMMENDATIONS**

Use Adesilex P10 mixed with Isolastic diluted 1: 1 with water in the following cases:

- · for installing glass mosaic or ceramic tiles on non-absorbent surfaces (Mapelastic, Mapelastic Smart, Mapegum WPS, tiles, etc.);
- · for installing glass mosaic or ceramic tiles in swimming pools, basins or similar structures even on absorbent substrates. Do not use **Adesilex P10** in the following cases:
- · on wood or wooden conglomerates;
- · on metal, rubber, PVC or linoleum surfaces;
- · for ceramic tile installations when a nominal adhesive layer thicker than 5 mm is required;
- · on concrete substrates where excessive movement or delayed shrinkage is anticipated;
- on particularly moist substrates which could slow down the setting of Adesilex P10.



#### **APPLICATION PROCEDURE**

#### Preparation of the substrate

The substrate must be adequately cured, mechanically sound, free of loose particles, grease, oil, paint, wax and other deleterious material or surface contamination and should be sufficiently dry.

Cementitious substrate must not be subject to shrinkage after tile installation. In mild weather, renders must have cured at least 1 week for each centimeter of thickness and cementitious screeds must have cured at least 28 days, unless they have been made with MAPEI special binders for screeds such as **Mapecem**, **Mapecem Pronto**, **Topcem**, **Topcem Pronto**. Surfaces that could become too hot due to exposure to sunlight, consider shading or cooling down with potable water. Gypsum substrate and anhydrite screeds must be perfectly dry (maximum residual moisture 0.5%), sufficiently hard and free of dust. It is absolutely essential that they are treated with **Primer G** or **Eco Prim T**. Areas subject to high moisture content should be primed with **Primer S**.

#### Preparation of the mix

While stirring, pour **Adesilex P10** into a container with approximately 35-37 per 100 parts (by weight) of clean water equal to 8.75-9.25 L of water per 25 kg of **Adesilex P10**.

Mix, preferably with a low-speed mixer, to obtain a homogeneous, creamy paste and lump-free mix; leave to rest for approximately 5 minutes and re-mix, the paste is then ready to use.

The mix, produced in this way, is workable for approximately 8 hours (at +23°C).

#### Application of the mix

To ensure good adhesion, it is recommended to first spread a thin layer of **Adesilex P10** on the substrate using the straight edge of the trowel. This allows for making the best use of the open time and adjustability time of the adhesive. Then apply the mixture with the suitable notched trowel.

The basic principle to be followed is to choose the most suitable trowel and to wet 100% of the back of the tile with the adhesive. For tiles with high, profiled ribs, **Adesilex P10** must also be applied on the back of the tiles.

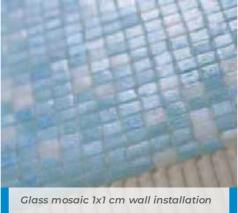
#### Installation of the tiles

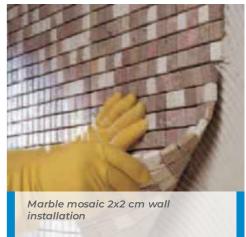
It is not necessary to wet the tiles before installation; only in the case of very dusty backs washing is recommended, by quickly immersing them in clean water. The tiles must be installed in the normal way, placing them firmly to ensure good contact with the adhesive. The open time of **Adesilex P10** in normal conditions of temperature and humidity is more than 30 minutes; unfavorable environmental conditions (strong sunlight, drying wind, high temperature as well as a highly absorbent substrate), could drastically reduce this time to a few minutes.

Therefore one must constantly check that the adhesive has not formed superficial skin and is still "fresh"; where there is a formation of superficial skin, the adhesive must be reworked with the notched trowel. Wetting the adhesive after it has produced the skin is not recommended because the water forms an anti-adhesive film instead of dissolving it. The "adjustability" of the tiles must be carried out within 45 minutes (at +23°C) after installation.

Tiles installed with **Adesilex P10** must not be subject to running water or rain for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.







#### Grouting and sealing

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

Grout with the appropriate MAPEI grout (see Technical Data Sheet of grouts for details).

#### Set to light foot traffic

Floors are set to withstand light foot traffic after 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 P10** is still fresh. Surfaces should be cleaned with a damp cloth, before the adhesive dries.

#### CONSUMPTION

Bonding mosaics (trowel n. 4):  $2 \text{ kg/m}^2$ Bonding ceramic tiles (trowel n. 5 or 6):  $4-5 \text{ kg/m}^2$ 

#### **PACKAGING**

Adesilex P10 is available in 25 kg bags.

#### **STORAGE**

When stored in dry conditions in the original, unopened bags, **Adesilex P10** has a shelf life of 12 months. If stored at high temperature and or high humidity conditions the shelf life may be reduced.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Adesilex P10 is irritant, it contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention. It is recommended to use protective gloves and goggles. For further and complete information about the safe use of our product, please refer to the latest version of our Material Safety Data Sheet.

#### **PRODUCT FOR PROFESSIONAL USE.**

TECHNICAL DATA (typical values) In compliance with:  PRODUCT IDENTIFICATION	<ul> <li>European EN 12004 such as C2TE</li> <li>European EN 12004 such as C2ESI</li> <li>(if mixed with Isolastic diluted 1:1 with water)</li> <li>ISO 13007-1 such as C2TE (C2ES1 if mixed with Isolastic diluted 1:1 with water)</li> <li>American ANSI A 118.4 - 1999</li> </ul>
PRODUCTIDENTIFICATION	
Туре:	powder
Colour:	white
Bulk density (kg/m³):	1,350
Dry solids content (%):	100
EMICODE:	EC1 R PLUS - very low emission
APPLICATION DATA (at +23°C and 50% R.H.)	
Mixing ratio:	35-37 parts water for 100 parts of <b>Adesilex P10</b> or 18 parts water + 18 parts of <b>Isolastic</b> for 100 parts of <b>Adesilex P10</b>
Consistency of mix:	very creamy
Density of mix (kg/m³):	1,500
pH of mix:	13
Pot life:	approx. 8 hours
Application temperature:	from +5°C to +40°C



Open time (according to EN 1346):	> 30 minutes
Adjustability time:	approx. 45 minutes
Ready for grouting on walls:	after 4-8 hours
Ready for grouting on floors:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days
FINAL PERFORMANCE	
Bonding strength in compliance with EN 1348 (N/mm²):	
<ul> <li>initial bonding (after 28 days):</li> <li>bonding after heat exposure:</li> <li>bonding after immersion in water:</li> <li>bonding after freeze/thaw cycles:</li> </ul>	1.5 1.4 1.3 1.4
Resistance to alkali:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to solvents:	excellent
Temperature when in use:	excellent
Deformability according to ISO 13007 and EN 12004 (Adesilex P10 + Isolastic diluted 1:1 with water):	S1 - deformable



#### **WARNING**

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.

 ${\it Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com}$ 

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

110-5-2014 (UAE)

Any reproduction of texts, photos and illustrations published here is prohibited and subject to



## ULTRACOLOR PLUS

High-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar free from Portland cement with water-repellent DropEffect® and mould-resistant BioBlock® technology for grouting joints up to 20 mm wide and with GREENHOUSE GAS EMISSIONS OFFSET















#### **CLASSIFICATION ACCORDING TO EN 13888**

**Ultracolor Plus** is a cementitious (C) mortar for grouting (G) improved (2), with reduced water absorption (W) and high resistance to abrasion (A), class CG2WA.

#### WHERE TO USE

Internal and external grouting of floors and walls in all types of ceramic (double-fired, single-fired, klinker, porcelain, etc.), terracotta, stone material (natural stone, marble, granite, agglomerates, etc.), and glass and marble mosaic.

#### Some application examples

- · Grouting floors and walls in areas subject to intense traffic (airports, shopping centres, restaurants, bars, etc.).
- · Grouting floors and walls in residential areas (hotels, private houses, etc.).
- · Grouting floors and walls on façades, balconies, terraces and on swimming pools.

#### **TECHNICAL CHARACTERISTICS**

**Ultracolor Plus** is a mortar made up of a blend of special hydraulic binders, graded aggregates, special polymers, water repellent admixtures, organic molecules and pigments. The formulation of **Ultracolor Plus** contains no Portland cement, making it a safe product for users.

The impact **Ultracolor Plus** has on the environment throughout its entire life cycle has been measured using the LCA (Life Cycle Assessment) method.

Residual Greenhouse Gas emissions (expressed in equivalent CO<sub>2</sub>) from **Ultracolor Plus** are offset annually through the purchase of certified environmental credits: which means **Ultracolor Plus** has zero impact on climate change. **Ultracolor Plus** also has very low emissions of VOC (Volatile Organic Compounds) to help safeguard the health of both those who apply the product and those who use areas in which it is applied, and is certified EC1 Plus by the German association GEV.

With **Ultracolor Plus**, the **Ultracolor** technology is based on a special, self-hydrating hydraulic binder which guarantees colour uniformity, by two innovative technologies which are the result of MAPEI research: BioBlock<sup>®</sup> and DropEffect<sup>®</sup>. The BioBlock<sup>®</sup> technology consists in special organic molecules which, by distributing themselves evenly in the microstructure of the joints, block the formation of micro-organisms that cause mould damage.

The DropEffect® technology, with a synergic effect, reduces the absorption of surface water.



When it is mixed with water in the proportions recommended and correctly applied, **Ultracolor Plus** forms a grouting mortar with the following characteristics:

- · water-repellent and droplet-effect:
- · uniform colour and free of staining since **Ultracolor Plus** does not produce efflorescence. From an analysis carried out using an electronic microscope (SEM), note that, compared with a Portland cement-based binder in a normal cementitious grouting mortar, the special cements in **Ultracolor Plus** do not generate the calcium hydroxide (hydrolysis lime) crystals during the hydration process, which cause efflorescence;
- · colours resistant to ultra-violet rays and atmospheric agents;
- · short waiting time before cleaning and easy finishing;
- · ready for light foot traffic and for use after a short period of time;
- · smooth, compact finished surface, with low water absorbency for easy cleaning;
- · shrinkage compensated, therefore free from cracks;
- · optimum resistance to abrasion, compression and flexural strength, even after freeze/thaw cycles, and therefore optimum durability;
- $\cdot$  good resistance to acids with pH > 3.

#### RECOMMENDATIONS

- · **Ultracolor Plus** does not contain Portland cement and must not be mixed with gypsum or other hydraulic binders; never add water to the mix once it has started to set.
- · Never mix **Ultracolor Plus** with salty or dirty water.
- $\cdot$  Use the product at temperatures between +5°C and +35°C.
- · Carry out grouting only on substrates which are sufficiently dry or have been waterproofed, to avoid a whitish film forming on the surface.
- · In order to avoid an uneven colour finish, we do not recommend sprinkling **Ultracolor Plus** powder onto the filled grout ioints.
- · When resistance to acids or, where extreme cleanliness or sterile conditions are required, use a suitable acid-resistant epoxy grout.
- · Expansion and movement joints on walls and floors must never be filled with **Ultracolor Plus**. Use a suitable flexible sealant from the MAPEI range.
- The surface of certain tiles or stone material may have micro-porosity or a rough surface. We recommend carrying out a preliminary test to check how easy it is to clean the surface where necessary to apply a protective treatment to the surface, to ensure the grout does not penetrate into the surface porosity of the tiles.
- · If an acid-based cleaner is used to clean the joint, we recommend testing the product befoehand to check the resistance of the colour. Always make sure that the joints are thoroughly rinsed down to avoid leaving traces of acid in the joints.

#### APPLICATION PROCEDURE

#### **Preparing the joints**

Grouting may take place when the adhesive is completely set. Make sure that the waiting times indicated in the technical data sheets are followed.

The joints must be clean, free of dust and empty down to at least 2/3 of the thickness of the tiles. Any adhesive or mortar which has seeped into the joints while laying the tiles must be removed while still fresh. With very absorbent tiles, high temperatures or windy conditions, dampen the joints with clean water.

#### Preparing the mix

While stirring, pour Ultracolor Plus into a clean, rust-free container containing

20-26% by weight of clean water.

Mix the grout with a low-speed mixer to avoid air entrainment, until a smooth paste is obtained.

Let the mix stand for 2-3 minutes, and stir again briefly before use.

Use the mix within 20-30 minutes of its preparation.

#### Applying the grout

Fill the joints with the **Ultracolor Plus** mix using a special MAPEI grout float or rubber squeegee, without leaving any gaps or steps.

Remove any excess of **Ultracolor Plus** from the surface, by moving the float or the rubber squeegee diagonally to the joints while the mix is still fresh.

#### **Finishing**

When the mix loses its plasticity and becomes opaque, which usually takes place after 15-30 minutes, clean off the excess **Ultracolor Plus** with a hard cellulose, damp sponge (e.g. a MAPEI sponge), working in a diagonal direction to the joints. Rinse the sponge frequently, using two different containers of water: one to remove the excess mix from the sponge, and the other, containing clean water, to rinse the sponge. This operation may also be carried out with a machine with a sponge belt.

It is possible to finish the surface also when the mix is partially set, after 50-60 minutes, with a damp Scotch-Brite® sponge: pass it over the joints to even out the surface.

This operation may be also carried out with a single disk rotary machine with special Scotch-Brite<sup>®</sup> type felt disk. If the cleaning operation is carried out too soon (the mix is still too plastic), some of the mix may be removed from the joints, which may change their colour.



If grouting is carried out in extremely hot, dry or windy weather, we recommend that the joints filled with **Ultracolor Plus** are dampened after a few hours.

Damp curing of Ultracolor Plus improves its final characteristics in all cases.

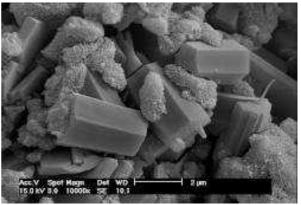
Final cleaning of the powdery film of **Ultracolor Plus** from the surface may be carried out with a clean, dry cloth. After the final cleaning operation, if the surface still has traces of cementitious residues, it may be cleaned down with an acidic cleaner (e.g. **UltraCare Keranet**), after the grout has completely cured.

In case of need to remove grout residues at the moment of installation, use a product such as **UltraCare Keranet Easy** spray, which is suitable for removal of exceeding grout from surfaces during laying operation. For a correct use of **UltraCare** products range please refer to the relevant Technical Data Sheets.





Hydration of a Portland cement-based binder in a traditional grouting mortar



Hydration of Ultracolor Plus special cement-based binder. Note the absence of lamellar crystals of Portlandite (calcium hydroxide), which is the cause of whitish efflorescence

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

Floors are ready for light foot traffic after approx. 3 hours.



#### **READY FOR USE**

Surfaces grouted with **Ultracolor Plus** may be put into service after 24 hours. Basins and swimming pools may be filled up 48 hours after grouting.

#### **CLEANING**

Tools and containers may be cleaned using plenty of water whilst Ultracolor Plus is still fresh.

#### **CONSUMPTION**

The consumption of **Ultracolor Plus** varies according to the size of the joints and the size and thickness of the tiles. The table illustrates a number of examples of the consumption in  $kg/m^2$ .

#### **PACKAGING**

22 kg bags, and 4x5 kg or 8x2 kg alupack boxes dependent on the colour.

#### **COLOURS AVAILABLE**

Ultracolor Plus is available in 40 colours of the MAPEI range (please refer to the colour samples).

#### **STORAGE**

**Ultracolor Plus** may be stored for 12 months (for 22 kg bags) and 24 months (for 2 and 5 kg bags) in its original packaging in a dry place.

However, after a certain amount of time, the setting time may extend but without modifying the final characteristics of the product.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

#### **TECHNICAL DATA (typical values)**

Conforms to standards:

- · European EN 13888 as CG2WA
- · ISO 13007-3 as CG2WAF

PRODUCT IDENTITY	
Consistency:	fine powder
Colour:	40 colours from the MAPEI range
Bulk density (kg/m³):	1,400
Dry solids content (%):	100
EMICODE:	EC1 Plus - very low emission

APPLICATION DATA (at +23°C - 50% R.H.)			
Mixing ratio:	100 parts <b>Ultracolor Plus</b> with 20-26 parts water, dependent on the colour		
Consistency of the mix:	fluid paste		
Density of mix (kg/m³):	1,980		
pH of mix:	approx. 11		
Pot life of mix:	20-30 minutes		
Application temperature range:	from +5°C to +35°C		
Grouting after installation:			



– on walls bonded with normal adhesive:	4-8 hours
- on walls bonded with fast-setting adhesive:	1-2 hours
- on walls with mortar:	2-3 days
– on floors bonded with normal adhesive:	24 hours
– on floors bonded with fast-setting adhesive:	3-4 hours
– on floors with mortar:	7-10 days
Waiting time for finishing:	15-30 minutes
Set to light foot traffic:	approx. 3 hours
Ready for use:	24 hours (48 hours for basins and swimming pools)

FINAL PERFORMANCES	
Flexural strength after 28 days (N/mm²) (EN 12808-3):	9
Compressive strength after 28 days (N/mm²) (EN 12808-3):	35
Flexural strength after freeze/thaw cycles (N/mm²) (EN 12808-3):	9
Compressive strength after freeze/thaw cycles (N/mm²) (EN 12808-3):	35
Abrasion resistance (EN 12808-2):	700 (loss in mm <sup>3</sup> )
Shrinkage (mm/m) (EN 12808-4):	1.5
Water absorption (g) (EN 12808-5) after 30 minutes:	0.1
Water absorption (g) (EN 12808-5) after 4 hours:	0.2
Resistance to solvents and oil:	excellent
Resistance to alkalis:	excellent
Resistance to acids:	good resistance to acids with pH > 3

## CONSUMPTION RATES ACCORDING TO THE SIZE OF THE TILES AND THE WIDTH OF THE JOINTS (kg/m $^2$ )

Cina aftila (carra)		Width of joint (mm)				
Size of tile (mm)	2	3	5	8	10	
75x150x6	0.4	0.6	1.0	1.5	1.9	
100x100x7	0.4	0.7	1.1	1.8	2.2	
100x100x9	0.6	0.9	1.4	2.3	2.9	
150x150x6	0.3	0.4	0.6	1.0	1.3	
200x200x7	0.2	0.3	0.6	0.9	1.1	
200x200x9	0.3	0.4	0.7	1.2	1.4	
300x300x10	0.2	0.3	0.5	0.9	1.1	
300x300x20	0.4	0.6	1.1	1.7	2.1	
300x600x10	0.2	0.2	0.4	0.6	0.8	
400x400x10	0.2	0.2	0.4	0.6	0.8	
500x500x10	0.1	0.2	0.3	0.5	0.6	
600x600x10	0.1	0.2	0.3	0.4	0.5	
750x750x10	0.1	0.1	0.2	0.3	0.4	
100x600x9	0.3	0.5	0.8	1.3	1.7	
150x600x9	0.2	0.4	0.6	1.0	1.2	
150x900x9	0.2	0.3	0.6	0.9	1.1	
150x1200x10	0.2	0.4	0.6	1.0	1.2	
225x450x9	0.2	0.3	0.5	0.8	1.0	
225x900x9	0.2	0.2	0.4	0.6	0.8	
250x900x9	0.1	0.2	0.4	0.6	0.7	
250x1200x10	0.2	0.2	0.4	0.6	0.8	



600x600x5	0.1	0.1	0.1	0.2	0.3
600x600x3			0.1	0.1	0.2
1000x500x5		0.1	0.1	0.2	0.2
1000x500x3			0.1	0.1	0.1
1000x1000x5			0.1	0.1	0.2
1000x1000x3				0.1	0.1
3000x1000x5			0.1	0.1	0.1
3000x1000x3				0.1	0.1

#### FORMULA FOR THE COVERAGE CALCULATION:

$$\frac{(A + B)}{(A \times B)} \times C \times D \times 1.6 = \frac{kg}{m^2}$$

A = length of tile (mm)

**B** = width of tile (mm)

C = thickness of tile (mm)

**D** = width of joint (mm)

For sizes not covered by the table, our website www.mapei.com has a calculator available to estimate consumption rates according to the size of the tiles and the width of the joints.

Ultracol	or Plus
100	WHITE
103	MOON WHITE
111	SILVER GREY
123	ANCIENT WHITE
112	MEDIUM GREY
113	CEMENT GREY
114	ANTHRACITE
127	ARCTIC GREY
110	MANHATTAN 2000
187	LINEN
176	GREEN-GREY
174	TORNADO
125	CASTLE GREY
119	LONDON GREY
163	LIGHT LILAC
168	CERULEAN



167	AVIO	
169	STEEL BLUE	
172	SPACE BLUE	
177	SAGE	
130	JASMINE	
131	VANILLA	
137	CARIBBEAN	
132	BEIGE 2000	
138	ALMOND	
141	CARAMEL	
142	BROWN	
189	SPELT	
133	SAND	
134	SILK	
188	BISCUIT	
135	GOLDEN DUST	
152	BROWN	
144	CHOCOLATE	
149	VOLCANO SAND	
145	TERRA DI SIENA	
143	TERRACOTTA	
136	MUD	
120	BLACK	
150	YELLOW	

N.B.: Due to the printing processes involved, the colours should be taken as merely indicative of the shades of the actual product

#### **WARNING**



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 force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

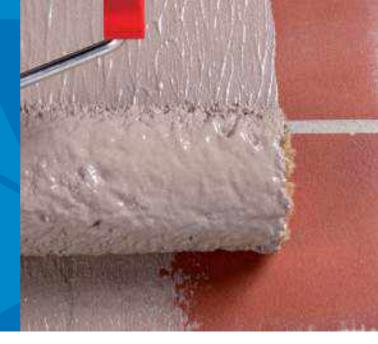
2801-9-2022-gb



## MAPELASTIC SMART

Two-component, high-flexibility cementitious mortar (with crack-bridging capacity up to 2 mm) applied by trowel or roller for waterproofing balconies, terraces, bathrooms and swimming pools













#### WHERE TO USE

Mapelastic Smart is used for waterproofing hydraulic projects such as channels, faces of damns, swimming pools, basins, storage tanks, etc. and balconies and terraces. Particularly suitable for waterproofing irregular surfaces.

Mapelastic Smart is also used to protect concrete structures, renders with hairline cracks and cementitious surfaces in general which, being subject to vibrations, may suffer from cracking.

#### Some application examples

- · Waterproofing hydraulic channels, concrete water tanks, faces of dams and basins, including those containing potable water.
- · Waterproofing bathrooms, showers, balconies, terraces, swimming pools etc. before laying ceramic tiles.
- $\cdot \ \text{Waterproofing plasterboard, render or cementitious surfaces, lightweight cement blocks and marine-grade plywood.}$
- $\cdot \ \mathsf{Flexible} \ \mathsf{protection} \ \mathsf{layer} \ \mathsf{of} \ \mathsf{new} \ \mathsf{concrete} \ \mathsf{structures} \ \mathsf{or} \ \mathsf{repaired} \ \mathsf{structures} \ \mathsf{subject} \ \mathsf{to} \ \mathsf{minor} \ \mathsf{deformation} \ \mathsf{under} \ \mathsf{load}.$
- · Protection of cementitious renders or concrete with cracks due to shrinkage, minor movement caused by thermal gradients or dynamic stresses due to the passage of vehicles, against infiltration of water and aggressive elements from the atmosphere.
- · Protection of concrete pillars and beams and road and railway viaducts repaired with products from the **Mapegrout** or **Planitop** ranges against the penetration of carbon dioxide.
- · Protection of concrete surfaces which may come into contact with sea water, de-icing salts, such as sodium or calcium chloride, and sulphates.

#### **ADVANTAGES**

- · High performance: a 2 mm thick film has a crack-bridging capacity of >2 mm.
- Excellent mechanical characteristics, especially when reinforced with Mapetex Sel or Mapenet 150 reinforcement.
- · CE-certified product in compliance with EN 1504-2 and EN 14891.
- · Excellent elongation at failure (170%, Class II AS/NZS 4858).
- · Fluid consistency for easy application.
- · Resistant to UV rays.
- · May also be applied on existing tiles.
- · Compatible with ceramic, mosaic and natural stone coverings using MAPEI's line of tile adhesives.
- · Approved for contact with potable water. Meets the requirements of AS/NZS 4020:2018, Report ID AAD47762.
- · Meets AS/NZS 4858:2004 Class II Wet Area Membrane Tested by CSIRO.
- · Meets the requirements of AS 4654.1:2012, non-exposed waterproofing membrane Tested by CSIRO.
- · Low VOC content of 0 g/L.
- · Product certified EC1 Plus by the GEV Institute (Gemeinschaft Emissions-kontrollierte).

#### TECHNICAL CHARACTERISTICS



Mapelastic Smart is a two-component mortar based on cementitious binders, fine-grained selected aggregates, special admixtures and synthetic polymers in water dispersion, blended according to a formula developed in MAPEI's own research laboratories.

When the two components are mixed, a blend with a plastic consistency is obtained. It may be applied by brush, by roller or by spraying with a worm screw rendering machine on both horizontal and vertical surfaces at a thickness of approximately 2 mm. Due to the content and high quality of the synthetic resins, the hardened layer of **Mapelastic Smart** remains constantly flexible under all environmental conditions.

Mapelastic Smart is waterproof and resistant to the penetration of aggressive substances which are present in the atmosphere, such as carbon dioxide, sulphur dioxide and sulphuric anhydride, and soluble salts such as chlorides and sulphates, which are present in seawater or in the ground.

Mapelastic Smart has excellent bonding properties on all cementitious, ceramic and marble surfaces as long as they are sound, sufficiently clean and properly prepared.

These properties, together with its resistance to the deteriorating effect of UV rays, a characteristic of this product, ensure that structures protected and waterproofed with **Mapelastic Smar**t have a long service life, even if they are located in areas with particularly rigid climatic conditions, in coastal areas with a saline-rich atmosphere or in industrial areas where the air is particularly polluted.

#### **RECOMMENDATIONS**

- · Do not apply **Mapelastic Smart** at temperatures lower than +8°C.
- · Do not add cement, aggregates or water to Mapelastic Smart.
- · Protect from rain and water spillages for the first 24 hours after application.
- · Do not leave Mapelastic Smart exposed in swimming pools.
- · Do not apply on cementitious substrates not sufficiently cured.
- · During hot weather, it is advisable to keep the product out of direct sunlight before use (power and liquid).

#### **APPLICATION PROCEDURE**

#### Preparation of the substrate

#### A) Protection and waterproofing of concrete structures and elements

(eg. pillars and beams for road and railway viaducts, cooling towers, chimneys, underpasses, retaining walls, applications in coastal areas, basins, channels, faces of dams, columns, faces of balconies, skirt roofs, etc.)

The surface to be treated must be sound and perfectly clean. Remove all cement laitance, flaky parts and traces of powder, grease, oil and removing compounds by sand-blasting or washing down with high-pressure water. If the structure to be waterproofed and protected with **Mapelastic Smart** is in a poor condition, remove the damaged

parts by hand or mechanical means, or by using a water jet blasting which uses high pressure water and is particularly recommended, because the reinforcement rods are not damaged and the structures are not subject to vibration which could cause hairline cracks to form in adjacent concrete.

Once the rust has been completely removed by sandblasting, carry out the repair with **Mapefer 1K** and a ready-mixed mortar from the **Mapegrout** or **Planitop** range.

#### B) Waterproofing of terraces, balconies and swimming pools

- · CEMENTITIOUS SCREEDS:
- settlement cracks caused by plastic or hygrometric shrinkage must be sealed beforehand with **Eporip**; if thicknesses of up to 20 mm have to be levelled out (to create slopes, fill out dips, etc.) use **Adesilex P4** or **Planitop Fast 330**.
- EXISTING FLOORS:
- existing floors and coverings in ceramic, gres, klinker or terracotta etc. must be well bonded to the substrate and free from substances which could compromise the quality of the bond, such as grease, oil, wax, paint, etc. Use mechanical means if necessary. Remove all traces of material that could affect the adhesion of **Mapelastic Smart.** Use mechanical means if necessary.
- · RENDERS:
- new, cementitious-based renders or lime-cement renders must be well cured (in good weather, we recommend at least 7 days per cm of thickness applied), bonded to the substrate, resistant and free of powder or all kinds of paint.
- · PVC STRUCTURAL WALL SYSTEMS:
- The PVC structural wall system substrate must be mechanically scratched using a course diamond disk on a low speed grinder to create a keyable finish. Ensure the grinder does not burnish the substrate due to high speeds.
- Apply a patching coat of the membrane along all non-structural movement joints. This is not to be considered as one of the 2 main coats required.

#### **Priming**

Mapelastic Smart does not require the use of a primer on properly prepared substrates. Simply dampen surfaces with water.

The following are exceptions:

- For excessively porous substrates use **Primer 3296** to seal the surface.
- $\cdot$  For very damp substrates,  $\textbf{Planiseal}\ \textbf{MR}\ \text{may}$  be used.
- Metal and PVC details (non-immersed), existing ceramic and natural stone substrates must be primed with **Eco Prim Grip Plus** to provide a good bond. For immersed applications, prime metal and PVC details with **Eporip** and sand seed with **Quartz 0.5 AU**.

#### Waterproofing detail



Mapeband TPE or Mapeband Flex Roll is used to seal structural joints and joints subject to high dynamic stress. Expansion joints, construction joints, and junctions (e.g. floor-wall, wall-wall) can be locations of movement and as such, require special preparation. MAPEI's highly flexible polymer band products Mapeband, Mapeband Easy and Mapeband SA (self adhesive) have been developed to provide rapid installation and dependable in-service performance for treatment of these areas. Refer to specific technical data sheets for installation details.

#### Preparation of the mortar

Pour component B (liquid) into a suitable, clean container. Then slowly add 75% of component A (powder) while stirring with a mechanical mixer.

Carefully mix Mapelastic Smart for a few minutes, making sure that no powder remains stuck to the sides or the bottom of the container. Add the remaining 25% of Part A (powder) and continue stirring until a perfectly homogenous mix is obtained.

Use a low-speed mechanical mixer for this operation to avoid too much air entering the mix. Do not prepare the mix by hand.

Preparation of **Mapelastic Smart** may also be carried out with a mortar mixer, which is usually supplied with mortar sprayers. If this technique is used, make sure that the mix is homogenous and has no lumps before it is poured into the hopper of the pump.

#### **APPLICATION**

Mapelastic Smart can be applied with brush, trowel, spray or long haired roller to a 1 mm wet film thickness (WFT) per coat. It must be applied in at least two even coats. The final dry film thickness (DFT) must never be less than 1.6 mm Wait until the first coat is dry before applying the second coat at a right angle to the first (approximately 4-5 hours at 23°C and 50% relative humidity. Note that low temperatures and/or high humidity can extend dry times). When used for waterproofing terraces, balconies, basins and swimming pools, and for protecting substrates which have hairline cracks or elements which are particularly stressed, we recommend to embed Mapenet 150 alkali-resistant glass fibre mesh in the first layer of fresh Mapelastic Smart, to act as a reinforcement. After the mesh has been laid, finish the surface with a flat trowel and apply a second layer of Mapelastic Smart when the first one has set (after 4-5 hours).

To further improve the crack-bridging of **Mapelastic Smart** on horizontal surfaces, we recommend inserting **Mapetex Sel** non-woven macro-holed polypropylene fabric. While it is still fresh, carefully lay Mapetex Sel on the surface, and press it in using a flat-bladed trowel to make sure that it is perfectly buttered. Then apply the second coat of Mapelastic Smart to completely cover the fabric, and smooth over the surface using a flat-bladed trowel.

For absorbent substrates with good weather and normal temperatures, tiling over **Mapelastic Smart** may occur after waiting 24-48 hours.

Always allow a minimum 3 days prior to flood testing and a minimum 5 days prior to full immersion. In cold climatic conditions, non-porous substrates, and at high humidities, curing can be significantly longer.

#### Laying ceramic tiles on Mapelastic Smart

- Bond in place with a C2 class cementitious adhesive such as **Keraflex** or **Keraflex Maxi S1** or, for quickening installation times, a C2F class adhesive such as **Granirapid** or **Keraquick Maxi S1**;
- Grout all joints with a CG2 class cementitious product such as **Keracolor FF** or **Keracolor GG**, **Kerapoxy** or **Ultracolor Plus**;
- Seal all expansion joints with a specific MAPEI flexible sealant (such as **Mapeflex PU 45 FT**, **Mapeflex AC**, **Mapeflex PU 40** or **Mapesil LM**).

#### **Painting over Mapelastic Smart**

If **Mapelastic Smart** is used, for protecting bridge piles and beams, railway underpasses or façades on buildings etc., the product may be painted over using products from the **Elastocolor** range, acrylic resin-based paint in water dispersion available in a wide array of colours obtained using the **ColorMap®** automatic colouring system.

If Mapelastic Smart is used for protecting horizontal concrete surfaces not for pedestrian use such as on flat roofs, the product may be painted over with Elastocolor Waterproof flexible acrylic resin-based paint in water dispersion. Elastocolor Waterproof is available in a wide range of colours obtained using the ColorMap® automatic colouring system and must be applied at least 20 days after applying Mapelastic Smart.

#### PRECAUTIONS TO BE TAKEN DURING AND AFTER APPLICATION

- · No special precautions need to be taken when the temperature is around +20°C.
- · During hot weather, it is advisable to keep the product out of direct sunlight before use (powder and liquid).
- · After application, and in particularly dry, hot or windy weather, we recommend that the surface is protected from rapid evaporation with sheets.









#### **CLEANING**

Due to the high bonding strength of **Mapelastic Smart**, even on metals, we recommend that work tools are washed with water before the mortar sets. Once it has set, cleaning may only be carried out by mechanical means.

#### **CONSUMPTION**

Application by trowel or roller:

Approx. 1.6 kg/m<sup>2</sup> per mm of thickness.

Spray gun application:

Approx. 2.2 kg/m² per mm of thickness.

N.B.: the consumption figures indicated are for a seamless film on a flat surface and are higher if applied on uneven substrates.

#### **PACKAGING**

Units of 30 kg:

component A: 20 kg bags;

component B: 10 kg drums. (Yield 18.75 Litres / 30 kg kit)

#### **STORAGE**

Mapelastic Smart component A may be stored for up to 12 months when contained in its original sealed packaging in a dry place.

Mapelastic Smart component B may be stored for up to 24 months.

Store Mapelastic Smart in a dry place and at a temperature of at least +5°C.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

For complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet available for download from our website www.mapei.com.au. PRODUCT FOR PROFESSIONAL USE.

Mapelastic Smart: two-component flexible cementitious membrane for waterproofing balconies, terraces, bathrooms and swimming-pools, and for protecting concrete in compliance with the requirements of EN 14891 (CM01P) and EN 1504-2, coating (C) principles PI, MC and IR					
TECHNICAL DATA (typical values)					
PRODUCT IDENTITY					
comp. A comp. B					
Consistency: powder liquid					



				_	
Colour:		grey		white	
Bulk density (g/cm³):		1.4		_	
Density (g/cm³):		-		1.0	
Dry solids content (%):		100		53	
APPLICATION DATA OF PRODUCT (at +20°C - 5	50% R.H.)				
Colour of mix:		grey			
Mixing ratio:		component A : component B = 2 : 1			
Consistency of mix:		fluid, m	nay be applied by brush		
Density of mix (kg/m³):		1,600			
Density after application by spray (kg/m³):		2,200			
Application temperature range:		from +	8°C to +40°C		
Pot life of mix:		1 hour			
EMICODE:			EC1 Plus - very low emission		
FINAL PERFORMANCE (thickness 2.0 mm)					
Performance characteristic	Test method		Requirements according to EN 1504-2 coating (C) principles PI, MC and IR	Performance figures for Mapelastic Smart	
Adhesion to concrete - after 28 days at +20°C and 50% R.H. (N/mm²):	EN 1542		for flexible systems with no traffic: ≥ 0.8 with traffic: ≥ 1.5	1.3	
Adhesion to concrete - after 7 days at +20°C and 50% R.H. + 21 days in water (N/mm²):			not required	0.9	
Thermal compatibility measured as adhesion according to EN 1542 (MPa): - freeze-thaw cycles with de-icing salts after storm cycles	EN 1368 EN 1368		for flexible systems with no traffic : ≥ 0.8 with traffic : ≥ 1.5	0.9	
Elasticity expressed as elongation - after 28 days at +20°C and 50% R.H. (%):	DIN 535 modifi		not required	120	
Static crack-bridging at +20°C expressed as maximum crack width - after 28 days at +20°C and 50% R.H. (mm):			from class A1 (0.1 mm) to class A5 (2.5 mm)	class A5 (+20°C) (> 2.5 mm)	
Dynamic crack-bridging at +20°C expressed as resistance to cracking cycles:	EN 1062-7		from class B1 to class B4.2	class B4.2 (+20°C) No failure of the test piece after 20,000 crack cycles with movement of crack from 0.20 to 0.50 mm	
Permeability to water vapour - equivalent air thickness $S_D$ (m):	EN ISO 7783		Class I (S <sub>D</sub> < 5 m) Class II (5 m < S <sub>D</sub> < 50 m) Class III (S <sub>D</sub> > 50 m)	Class I (permeable to water vapour) $S_D = 3.6 \mu = 1800$	
Impermeability to water, expressed as	EN 1062-3		< 0.1	< 0.05	



Permeability to carbon dioxide (CO <sub>2</sub> ) - diffusion in equivalent air layer thickness S <sub>DCO2</sub> (m):	EN 1062-6	> 50	> 50
Reaction to fire:	EN 13501-1	Euroclass	Е
		Requirements according to EN 14891	Performance figures for Mapelastic Smart
Impermeability to water under pressure (1.5 bar for 7 days of positive lift):	EN 14891-A.7	no penetration	no penetration
Crack-bridging ability at +23°C (mm):	EN 14891-A.8.2	≥ 0.75	2.8
Crack-bridging ability at -5°C (mm):	EN 14891-A.8.3	≥ 0.75	0.8
Initial adhesion strength (N/mm²):	EN 14891-A.6.2	≥ 0.5	1.1
Adhesion after immersion in water (N/mm²):	EN 14891-A.6.3	≥ 0.5	0.65
Adhesion after application of heat source (N/mm²):	EN 14891-A.6.5	≥ 0.5	1.3
Adhesion after freeze-thaw cycles (N/mm²):	EN 14891-A.6.6	≥ 0.5	0.7
Adhesion after immersion in basic water (N/mm²):	EN 14891-A.6.9	≥ 0.5	0.7
Adhesion after immersion in chlorinate water (N/mm²):	EN 14891-A.6.8	≥ 0.5	0.7

Adhesion values according to EN 14891 measured on **Mapelastic Smart** and C2-type cementitious adhesive in compliance with EN 12004

#### **WARNING**

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.au.

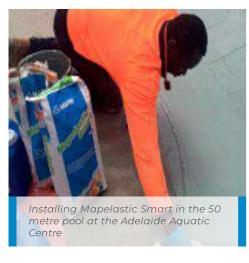
#### **LEGAL NOTICE**

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 force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.au.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.







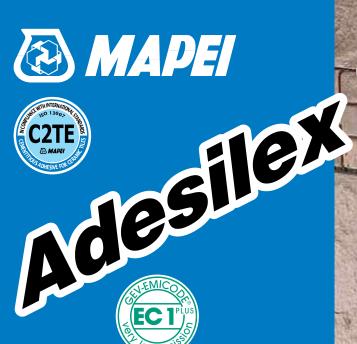




Completed 50 m pool at the Adelaide Aquatic Centre

#### 2013-02-2022-AUS





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

#### CLASSIFICATION IN COMPLIANCE WITH ISO 13007-1 AND EN 12004

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

#### WHERE TO USE

- Interior and exterior bonding of ceramic, porcelain tiles and mosaics on floors, walls and ceilings. Also suitable for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, Eraclit<sup>®</sup> (wood-cement panels), sound-deadening panels, etc.
- Interior and exterior bonding of stone materials (provided they are not sensitive to moisture).

#### 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 or Eco Prim T;
  - gypsum board;
  - underfloor heating installations;
  - cementitious screeds, as long as they are sufficiently cured and dry.
- Tile on tile of existing flooring with tiles up to 900 cm<sup>2</sup>.
- Bonding small sized ceramic 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.



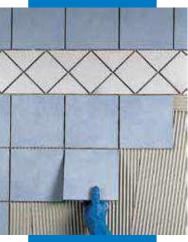




Installation of single-fired tile on floor



Installation of single-fired tile on wall render



Installation of single-fired tile on gypsum board wall

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 sagging or slipping even when heavy tiles are used;
- perfect adherence to all materials normally used in building;
- hardens without appreciable shrinkage;
- extended open time.

#### **RECOMMENDATIONS**

Do not use **Adesilex P9**:

- on walls or floors subject to extreme flexing or vibration (wood, fibre-cement, etc.);
- on metal surfaces;
- for installations that require a nominal adhesive thickness greater than 5 mm.

#### **APPLICATION PROCEDURE Preparation of the substrate**

The substrate must be adequately cured, mechanically sound, free of loose particles, grease, oil, paint, wax and other deleterious material or surface contamination and should be sufficiently dry.

Cement substrate must not be subject to shrinkage after tile installation. In mild weather, renders must have cured at least 1 week for each centimeter of thickness and cementitious screeds must have cured at least 28 days, unless they have been made with MAPEI special binders for screeds such as Mapecem, Mapecem Pronto, Topcem, Topcem Pronto.

Surfaces that could become too hot due to exposure to sunlight, consider shading or cooling down with potable water.

Gypsum substrate and anhydrite screeds must be perfectly dry (maximum residual moisture 0.5%), sufficiently hard and free of dust. It is absolutely essential that they are treated with **Primer G** or **Eco Prim T**.

#### Preparation of the mix

Adesilex P9 must be mixed with clean water to obtain a homogenous paste free of lumps; leave to rest approximately 5 minutes and re-mix, the paste is then ready to use. The quantity of water to be used is 31-33 parts per 100 parts (by weight) equal to 7.75-8.25 litres of water for 25 kg of Adesilex P9 grey and 36-38 parts per 100 parts (by weight) equal to 9-9.5 litres of water for 25 kg of Adesilex P9 white. The mix, produced in this way, is workable for at least 8 hours (at +23°C).

#### Application of 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 tiles 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 paragraph").

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.

#### Installation of the tiles

It is not necessary to wet the tiles before installation; only in the case of very dusty backs is washing recommended, by quickly immersing them in clean water. The tiles must be installed in the normal way, placing them firmly to ensure good contact with the adhesive. The open time of **Adesilex P9** in normal conditions of temperature and humidity, is 30 minutes; unfavorable environmental conditions (strong sunlight, drying wind, high temperature as well as a highly absorbent substrate), could drastically reduce this time to a few minutes.

Therefore one must constantly check that the adhesive has not formed a superficial skin and is still "fresh"; where there is a formation of a superficial skin, the adhesive must be reworked with the notched trowel. Wetting the adhesive after it has produced the skin is not recommended because the water forms an anti-adhesive film instead of dissolving it. The "adjustability" of the tiles must be carried out within 60 minutes (at +23°C) after installation.

Tiles installed with **Adesilex P9** must not be subject to running water or rain for at least 24 hours and must be protected from frost and strong sunlight for at least 5-7 days after installation.

#### 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.

#### **GROUTING AND SEALING**

Wall joints between the ceramic tiles can be grouted after 4-8 hours and floor joints can be grouted after 24 hours with the specific MAPEI cementitious or epoxy grouts, available in different colours.

Expansion joints must be sealed with the specific MAPEI sealants.

Grout with the appropriate MAPEI grout (see Technical Data Sheet of grouts for details).

#### **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 withstand 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.

#### **CONSUMPTION Bonding ceramic tiles:**

- Mosaics and small sizes in general (trowel n. 4): 2 kg/m².
- Normal sizes
- (trowel n. 5): 2.5-3 kg/m<sup>2</sup>.
- Large sizes, exterior floors (trowel n. 6): 4 kg/m².

#### **TECHNICAL DATA (typical values)**

In compliance with:

- European EN 12004 as C2TE
- ISO 13007-1 as C2TE
- American ANSI A 118.4

PRODUCT IDENTITY			
Туре:	powder		
Colour:	white or grey		
Bulk density (kg/m³):	1300		
Dry solids content (%):	100		
EMICODE:	EC1 Plus - very low emission		
APPLICATION DATA (at +23°C and 50% R.H.)			
Mixing ratio:	100 parts <b>Adesilex P9</b> with 31-33 parts water by weight for <b>Adesilex P9</b> grey and 36-38 parts water by weight for <b>Adesilex P9</b> white		
Consistency of mix:	creamy paste		
Density of the mix (kg/m³):	1500		
pH of mix:	13		
Pot life:	over 8 hours		
Application temperature:	from +5°C to +40°C		
Open time (acc. EN 1346):	30 minutes		
Adjustability time:	approx. 60 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 alkali:	excellent		
Resistance to oils:	excellent (poor to vegetable oil)		
Resistance to solvents:	excellent		
Temperature when in use:	from –30°C to +90°C		



Adjustability time up to 60 minutes





Exterior laying of strip tiles. N.B. Completely fill all lugs and ribs

# Adesilex P9





Spot-bonding insulating panels on untreated wall

SACO



#### 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** white and grey are available in 25 kg bags.

#### STORAGE

When stored in dry conditions in the original, unopened bags, **Adesilex P9** has a shelf life of 12 months. If stored at high temperature and or high humidity conditions the shelf life may be reduced.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instruction on the safe use of our products can be found on the latest version of the Safety Data Sheet available on our website www.mapei.ae

#### **IMPORTANT NOTES**

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. it is therefore important that installers satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written

specification. The installer should ensure that our latest product data and safety information sheets have been consulted prior to use.

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 other project-related documents, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.com. ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.



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.

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

