



Isolastic 50



SGBPDC-12-079

**Latex additive
to elasticize
cement-based
adhesives**



Isolastic 50 is a latex to be mixed with **Kerabond T**, **Kerafloor** and **Adesilex P10** to improve their performances and deformability to meet the requirements of class C2 (improved cementitious adhesive) according to EN 12004 and those of class S1 according to EN 12002.

WHERE TO USE

ISOLASTIC 50 + KERABOND T

For interior and exterior bonding of:

- ceramic tiles of every type (double fired, single fired, grès, klinker, glass mosaic, porcelain tiles, etc.);
- stone material and large size tiles.

Some application examples

- Exterior installation of ceramic tiles and stone materials (façades, swimming pools, balconies, terraces).
- Ceramic tiles onto precast concrete panels (prefabricated bathrooms, wall in tunnel prefab system).
- Ceramic tiles onto existing floors (ceramic, marble, terrazzo, timber, etc.).
- Ceramic tiles onto cement based and asphalt based screeds.
- Ceramic tiles onto deformable substrates (gypsum-board, cement board, panels, reinforced concrete, etc.).

ISOLASTIC 50 + KERAFLOOR

For interior and exterior bonding of:

- large-size ceramic tiles;
- ribbed klinker tiles, cotto toscano, stone slabs etc. needing layers of adhesive thicker than 5 mm;
- ceramic tiles on substrates with irregularities up to 15 mm.

Some application examples

- Ceramic tiles and stone material in exteriors (façades, swimming pools, balconies, terraces), also on deformable substrates.
- Large-size ceramic floor tiles laid on underfloor heating installations.

ISOLASTIC 50 + ADESILEX P10

For interior and exterior floors and walls bonding of front and reverse side installation of normal or heavy weight glass, marble and ceramic mosaic.

Some application examples

- Bonding mosaic in swimming pools on renders or on substrates waterproofed with **Mapelastic**.
- Internal bonding of mosaic on non absorbent surfaces such as existing ceramic tiles, cementitious substrates waterproofed with **Mapegum WPS**, etc.
- Bonding glass mosaic on external façades onto concrete or render.



TECHNICAL CHARACTERISTICS

Isolastic 50 is a very fluid, pinkish-white liquid composed of a water dispersion of an extremely elastic polymer which, when mixed with cement based adhesives, improves adhesion to all substrates, deformability and impermeability, once hydration has taken place.

RECOMMENDATIONS

Kerabond T, Kerafloor and **Adesilex P10** mixed with **Isolastic 50** must never be used for:

- installing stone slabs subject to deformation from moisture;
- installing marble or natural stone subject to staining from moisture;
- installing tiles in reservoirs, swimming pools or refrigeration rooms that need to be put in service quickly;
- installing on metal, rubber, PVC and linoleum substrates.

In hot and dry climates the adhesive obtained by mixing **Isolastic 50** with **Kerabond T, Kerafloor** or **Adesilex P10**, has a short open time with the formation of a surface skin which must be removed by re-trowelling.

APPLICATION PROCEDURE

All substrates must be flat, sound, cured, free of loose particles and clean. Precast concrete elements or cast in situ must be cured for at least 3 months in favourable weather conditions.

Cementitious substrates must not be subject to shrinkage once the tiles have been installed, therefore renders should be cured at least one week per centimetre of thickness.

Cementitious screeds must have an overall cure of at least 28 days unless they have been made with the special MAPEI binders such as **Mapecem, Mapecem Pronto, Topcem, Topcem Pronto**.

Gypsum substrates and anhydrite screeds must be perfectly dry (maximum residual moisture 0.5%), sound and free from dust. They must be treated with **Primer G** or **Mapeprim SP**. Areas subject to extreme damp must be primed with **Primer S**.

Mixing ratio

Kerabond T + Isolastic 50: mix a 25 kg bag of **Kerabond T** with approximate 8 kg of **Isolastic 50**.

Kerafloor + Isolastic 50: mix a 25 kg bag of **Kerafloor** with approximate 7 kg of **Isolastic 50**.

Adesilex P10 + Isolastic 50: mix a 25 kg bag of **Adesilex P10** with approximate 8.0 kg of **Isolastic 50**.

Preparing the mix

Pour the powder into **Isolastic 50** and continuously stir the mix with a slow speed mechanical stirrer until it becomes a smooth paste free of lumps.

Let the mix sit for a few minutes and after further stirring, proceed with the application.

Applying the mix

Apply the mix on the substrates with a notched trowel. Choose the trowel that transfers the adhesive to at least 65-70% of the back of the tiles for walls and floors set to light foot traffic in interiors and 100% coverage for heavy traffic areas outdoors. To obtain a good adherence, first apply a thin coat of the mix onto the substrates using the flat side of the trowel, then immediately after apply the desired thickness of the mix using the appropriate notched trowel according to the type and size of the tiles.

Installing the tiles

The same recommendation as set for the adhesive with which **Isolastic 50** is mixed. However great attention should be paid to open time which, in the equivalent and relative temperature and humidity condition, will be slightly shorter than the open time of the basic product.

N.B. *With exterior applications, in swimming pools, reservoirs, large sized tiles (over 400 cm²), or floors to be polished in situ, it is advisable to spread a layer of adhesive on the back of the tiles as well, so as to ensure perfect contact and the absence of voids. Always be careful about the formation of the surface skin.*

It is advisable not to work in temperatures below +5°C or above +40°C.

GROUTING AND SEALING

Wall joints can be grouted after 4-8 hours and floor joints after 24-36 hours with special MAPEI cementitious or epoxy grouts, available in different colours.

Expansion joints must be sealed with the special MAPEI sealants.

SET TO LIGHT FOOT TRAFFIC

Floors are set to light foot traffic after 24-36 hours.

READY FOR USE

Surfaces are ready for use after approximately 14 days. Basins and swimming pools can be filled after 3 weeks.

Cleaning

Tools can be cleaned using plenty of water before the adhesive begins to set. After setting, cleaning becomes very difficult, but can be helped with a solvent such as white spirit.

TECHNICAL DATA (typical values)

In compliance with

-European EN 12004 as C2ES1
 -ISO 13007-1 C2ES1
 -American ANSI A118.4

PRODUCT IDENTITY

Type:	fluid liquid
Colour:	pinkish white
Density (g/cm³):	1.00 - 1.02
pH:	5 - 7
Dry solids content (%):	16.5 - 18.5
Brookfield viscosity (mPa*s):	30

COMPOSITION AND PROPERTIES OF THE MIXTURE AT +23°C AND 50% R.H.

	Kerabond T + Isolastic 50	Kerafloor + Isolastic 50	Adesilex P10 + Isolastic 50
Mixing ratio by weight:	100 : 32	100 : 28	100 : 32
Consistency of mix:	very pasty	very pasty	very pasty
Colour:	grey/white	grey/white	white
Density of the mixture (kg/m³):	1.50	1.60	1.45
pH of mix:	over 12	over 12	over 12
Pot life:	8 hours	8 hours	8 hours
Application temperature range:	from +5°C to +40°C	from +5°C to +40°C	from +5°C to +40°C
Open time (according to EN 1346):	>30 minutes	>30 minutes	> 30 minutes
Adjustability time:	approx. 45 minutes	approx. 45 minutes	approx. 45 minutes
Grouting wall joints:	after 4-8 hours	after 6-8 hours	after 6-8 hours
Grouting floor joints:	after 24 hours	after 24-36 hours	after 24 hours
Set to light foot traffic:	24 hours	24-36 hours	after 24 hours
Ready for use:	14 days	14 days	14 days

FINAL PERFORMANCES

	Kerabond T + Isolastic 50	Kerafloor + Isolastic 50	Adesilex P10 + Isolastic 50
Tensile adhesion strength according to EN1348 (N/mm²):			
– initial (after 28 days):	2.1	1.8	2.1
– after heating:	2.0	1.8	3.0
– after water immersion:	1.3	1.2	1.3
– after freeze-thaw cycles:	1.6	1.3	1.4
Resistance to alkali:	excellent		
Resistance to oils:	excellent (poor to vegetable oils)		
Resistance to solvents:	excellent		
Temperature when in use:	from –30°C to +90°C		
Deformability according to EN 12002 (mm):	> 2.5 S1 deformable	> 2.5 S1 deformable	> 2.5 S1 deformable

Isolastic 50



APPROX. CONSUMPTION (kg/m ²)		
Type of tiles	Isolastic 50 (kg/m ²)	Consumption
Mosaics	0.6 - 1.0	2 - 3 kg/m ²
Normal sized tiles (up to 200x200 mm)	1.2 - 1.6	4 - 5 kg/m ²
Large sized tiles floors, outdoors	> 1.7	> 6 kg/m ²

PACKAGING

Isolastic 50 is available in 8 or 25 kg drums.

STORAGE

Isolastic 50 can be stored 24 months in original packaging. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Isolastic 50 is not hazardous according to the regulation standards on the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemical products.

For further and complete information about the safe use of our product please refer to our latest version of the Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

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.sg

All relevant references of the product are available upon request

Mapei Far East Pte Ltd
28, Tuas West Road - Singapore 638383
Tel. (65) 6862 3488 - Fax (65) 6862 1012/3
Website: www.mapei.com.sg - E-mail: mapei@mapei.com.sg



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