LATEX PLUS

Latex admixture imparting elasticity to Keraquick S1 and Keraquick Maxi S1, Planipatch and Nivorapid

WHERE TO USE

· As an admixture for **Keraquick S1** and **Keraquick Maxi S1** to obtain a high performance, fast setting, highly deformable (class C2F S2 according to EN 12004) adhesive for ceramic tiles and stone material.
· As an admixture for **Nivorapid** and **Planipatch** to obtain an ultra-fast cementitious levelling compound with improved deformability and bonding strength.

TECHNICAL CHARACTERISTICS

Latex Plus is a water dispersion of an extremely flexible polymer with low viscosity to be mixed with **Keraquick S1** and **Keraquick Maxi S1**, **Nivorapid** and **Planipatch** in order to improve their deformability without otherwise changing their application and performance characteristics.

RECOMMENDATIONS

· **Keraquick S1** and **Keraquick Maxi S1**, **Nivorapid** and **Planipatch** mixed with **Latex Plus** should never be applied at temperatures below +5°C or above +30°C.
· Do not use more than the recommended amount of **Latex Plus**.
· Do not add **Latex Plus** or water to a mix that has already begun to set.
· Do not leave **Latex Plus**, **Nivorapid**, **Planipatch** and **Keraquick S1** and **Keraquick Maxi S1** exposed to direct sunlight for long periods of time before using.

APPLICATIONS

A) ***Latex Plus + Keraquick Maxi S1 or Latex Plus + Keraquick S1***
Fast setting adhesive with high deformability for interior and exterior installations of ceramic tiles and stone material.
B) ***Latex Plus + Nivorapid*** *or* ***Planipatch***
Fast setting skimming compound with high deformability for interior surfaces.

A) LATEX PLUS + KERAQUICK S1 OR LATEX PLUS + KERAQUICK MAXI S1

WHERE TO USE

Interior and exterior installations of all types of ceramic tiles (double-fired, single-fired, gres, clinker, terracotta, vitreous mosaic, porcelain, etc.), including large format and high thickness stone materials. Particularly recommended for installing all types of thin porcelain tile (both with or without glass fibre reinforcement mesh).

Some application examples

· Installation of ceramic and stone material on:
· underfloor heated installations;

· façades, balconies, terraces;
· precast concrete walls;
· existing floors (ceramic tiles, marble, PVC rubber, etc.);
· cement screeds or hot-poured asphalt substrates (provided they are stable and well oxidized);
· deformable surfaces (wood, metal, etc.).

APPLICATION PROCEDURE

Preparing the substrates

Substrates must be flat, mechanically strong, free of loose parts, grease, oil, paint, wax, etc. and sufficiently dry. Damp substrates could slow the setting of **Keraquick S1** + **Latex Plus** or **Keraquick Maxi S1** + **Latex Plus**.Cementitious substrates must not be subject to shrinkage once the tiles have been installed, therefore in warm weather renders should be cured at least 1 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 for screeds such as **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto**.
Cool surfaces that are too hot due to exposure to direct sunlight by dampening them with water.
Gypsum substrates and anhydrite screeds must be perfectly dry (maximum residual moisture 0.5% or 0.3% if heated), sufficiently hard and free from dust. They must be treated with **Primer G** or **Eco Prim T**. Areas subject to high humidity must be primed with **Primer S**.
In general, refer to the relevant MAPEI technical documentation regarding substrate preparation before repairing cracks in substrates, consolidating rapid-drying screeds and levelling installation surfaces.

Mixing ratios

Mix **Keraquick S1** or **Keraquick Maxi S1** with **Latex Plus** only, without adding water, when maximum deformability is required.
The mixing ratios are as follows:
– 8 to 8.5 kg of **Latex Plus** for each 25 kg bag of **Keraquick S1** or **Keraquick Maxi S1** grey;
– 7.5 to 8 kg of **Latex Plus** for each 23 kg bag of **Keraquick S1** or **Keraquick Maxi S1** white.

Preparing the mix

Pour the powder into the liquid, mixing with an agitator at low speed until a homogenous, lump-free paste is obtained. Let the mix sit for a few minutes, then mix again briefly, and apply.

Applying the mix

Spread a thin layer of the mix down to a feather edge using the flat face of the trowel, then use a notched trowel to apply enough adhesive to guarantee sufficient wetting of the back of the tiles. Always be careful to stay within the open time of the adhesive. In certain ambient conditions (high temperatures, dry, windy weather) the open time may be shorter than usual.
N.B. *For exterior installations of large size tiles, floors to be polished in situ, or those subject to heavy traffic, back-buttering is recommended to ensure total transfer of the adhesive without voids.*

GROUTING AND SEALING

Joints can be grouted after 2-3 hours with the special MAPEI cementitious or epoxy grouts, available in different colours.

SET TO LIGHT FOOT TRAFFIC

Floors are set to light foot traffic after 2-3 hours.

READY FOR USE

Surfaces are ready for use after 24 hours. Basins and swimming pools can be filled after 3 days.

CONSUMPTION

	Latex Plus	Keraquick S1 or Keraquick Maxi S1
Mosaics and small-sized tiles:	0.7-1 kg/m²	2-3 kg/m²

Medium-sized tiles:	1.3-1.7 kg/m²	4-5 kg/m²
Large-sized tiles:	> 2 kg/m²	> 6 kg/m²

B) LATEX PLUS + NIVORAPID OR PLANIPATCH

WHERE TO USE

· Levelling of wood plank-on-edge flooring, chipboard, and plywood.
· Levelling of sheet metal, PVC, rubber, linoleum, strong non-woven flooring, and ceramic tile.
· Levelling for walls and floors on all substrates normally used in construction, provided they are not subject to the presence of moisture.
· Levelling of flexible and deformable substrates varying in thickness from 1 to 20 mm (**Nivorapid** + **Latex Plus**) or from 0 to 10 mm (**Planipatch** + **Latex Plus**), to ready them to receive any type of ceramic, resilient or textile flooring.

RECOMMENDATIONS

· Do not use externally.
· Do not use on substrates subject to rising damp.
· Do not use directly on anhydrite surfaces (treat first with a coat of **Primer G** or **Eco Prim T**).
· Do not use **Nivorapid** or **Planipatch** mixed with **Latex Plus** as a skimming compound underneath parquet or glued wood flooring.
· When used for resilients, watch out for imprintability. If possible, use **Latex Plus** diluted with water.

APPLICATION PROCEDURE

Preparing the substrate

Substrates must be solid, free of dust, loose particles, paint, wax, oil, rust and gypsum residue.
Nivorapid or **Planipatch** + **Latex Plus** form a levelling compound with excellent adhesion on metal surfaces, existing rubber floors, PVC, strong non-woven flooring, chipboard, parquet, linoleum or similar materials.
These surfaces must be clean and sanded before levelling with **Nivorapid** or **Planipatch** + **Latex Plus**. Before applying, make sure that existing flooring is well fastened to the support.
Nivorapid + **Latex Plus** and **Planipatch** + **Latex Plus** can be applied in thicknesses from 1 to 20 mm (**Nivorapid** + **Latex Plus**) and from 0 to 10 mm, even in a single coat, without cracking or crazing.
Once they have hardened they are highly flexible with excellent adhesion to all supports, without needing the application of a primer, except in the cases mentionated above.

Preparing the mix

Nivorapid or **Planipatch** should be mixed only with **Latex Plus**, without adding water, when maximum deformability is required and for applications over difficult surfaces.
Pour 6-9 kg (the exact quantity depending on the type of levelling compound to be made, that is on floor or wall, and on the viscosity desired) of **Latex Plus** into a clean receptacle and add a 25 kg bag of **Nivorapid**, preferably mixing with an agitator (at low speed) until a homogeneous, lump-free paste is obtained. When using **Planipatch** the amount of **Latex Plus** to be used varies from 5.75 to 9 kg of **Latex Plus** for each 25 kg bag of **Planipatch**. Mix only enough **Nivorapid** or **Planipatch** + **Latex Plus** at a time that can be used within 10-15 minutes at +23°C.

Applying the mix

Apply **Nivorapid** or **Planipatch** + **Latex Plus** with a metal trowel. When needed, several coats may be applied in rapid succession as soon as each coat has hardened (after approx. 50 to 60 minutes, depending on temperature and on the absorbency of the substrate).
Flooring can be bonded to **Nivorapid** or **Planipatch** + **Latex Plus** skimming compound 12-24 hours after application, depending on the thickness, ambient temperature and humidity.

CONSUMPTION

Nivorapid + Latex Plus

Nivorapid: 1.3-1.5 kg/m² per mm of thickness.
Latex Plus: 0.3-0.5 kg/m² per mm of thickness.

Planipatch + Latex Plus

Planipatch: 1.3-1.4 kg/m² per mm of thickness.
Latex Plus: 0.32-0.47 kg/m² per mm of thickness.

Cleaning

Tools can be cleaned with plenty of water before the adhesive hardens. Afterwards cleaning is very difficult. Solvents, like mineral spirits, may be helpful.

PACKAGING

Latex Plus is available in 10 kg drums.

STORAGE

Stored normally, in original sealed packaging, **Latex Plus** is stable for 24 months. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Latex Plus is not considered hazardous according to the ruling norms on the classification of mixtures. It is however recommended the use of protective gloves and goggles and to take the usual necessary precautions for handling chemical products.
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.

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.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	white
Density (g/cm³):	1.04
pH:	7
Dry solids content (%):	34
Brookfield viscosity (mPa·s):	20
TECHNICAL DATA FOR KERAQUICK MAXI S1 + LATEX PLUS AND KERAQUICK S1 + LATEX PLUS In compliance with: – European EN 12004 as C2FS2 – ISO 13007-1 as C2FS2	
APPLICATION DATA (at +23°C and 50% R.H.)	

Mixing ratio:	**Keraquick S1** or **Keraquick Maxi S1** grey 8-8.5 kg **Latex Plus** for each 25 kg bag	**Keraquick S1** or **Keraquick Maxi S1** white 7.5-8 kg **Latex Plus** for each 23 kg bag
Consistency of the mix:	pasty	pasty
Colour:	grey	white
Density of mix (kg/m³):	1550	1550
pH of the mix:	approx. 11	
Pot life:	30 minutes (for **Latex Plus** + **Keraquick S1**); 45 minutes (for **Latex Plus** + **Keraquick Maxi S1**)	
Application temperature range:	from +5°C to +30°C	
Open time (according to EN 1346):	10-15 minutes	
Ready for grouting:	2-3 hours	
Set to light foot traffic:	2-3 hours	
Ready for use:	24 hours (3 days for basins and swimming pools)	
FINAL PERFORMANCE DATA		
Tensile adhesion strength (according to EN 1348) (N/mm²) **– initial (after 28 days at +23°C and 50% R.H.)** **– after heat ageing:** **– after immersion in water:** **– after freeze/thaw cycles:**	 2.5 2.8 1.3 1.4	
Resistance to acids:	fair	
Resistance to alkalis:	excellent	
Resistance to oils:	excellent	
Resistance to solvents:	excellent	
Temperature when in use:	from -30°C to +90°C	
Deformability according to EN 12004:	> 5 mm - S2, highly deformable	

TECHNICAL DATA for NIVORAPID+LATEX PLUS e PLANIPATCH+LATEX PLUS		
APPLICATION DATA at +23°C - 50% U.R.	**Nivorapid+Latex Plus**	**Planipatch+Latex Plus**
Consistency:	pasty	pasty
Colour:	dark grey	dark grey
Density of mix (g/cm³):	1800	1800
pH of the mix:	12	12
Minimum application temperature:	+5°C	+5°C

Open time:	20 minutes		20 minutes	
Setting time:	30 minutes		30 minutes	
Set to light foot traffic:	2 hours		2 hours	
Waiting time before bonding flooring:	12-24 hours		12-24 hours	
FINAL PERFORMANCE DATA	**Nivorapid+Latex Plus**		**Planipatch+Latex Plus**	
Compressive strength (N/mm²):	**23%**	**36%**	**23%**	**36%**
– after 1 day	8	16	11	8
– after 7 days	14	21	14	11
– after 28 days	20	25	15	17
Flexural strength (N/mm²):				
– after 1 day	6	7	5	4
– after 7 days	7	9	8	7
– after 28 days	10	11	10	10

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