NIVOPLAN

Smoothing mortar for internal and external walls and ceilings for thicknesses from 2 to 20 mm



WHERE TO USE

Nivoplan is particularly suitable for rendering and levelling indoor and outdoor wall and ceiling surfaces in layers of thicknesses from 2 to 20 mm.
Nivoplan makes the surfaces suitable for the installation of ceramic tiles or for paint finishing.

Some application examples

- Smoothing walls prior to installing ceramic tiles.
- Repairing old, damaged renders.
- Levelling reinforced concrete surfaces of swimming pools and façades prior to installing ceramic coverings, waterproofing by painting.
- Smoothing foamed cement, brick, eraclit, etc. walls.

TECHNICAL CHARACTERISTICS

Nivoplan is a grey or white powder composed of cement, selected aggregates and special synthetic resins which, when mixed with water, provide a mix that is easy to apply on vertical surfaces with a trowel or with a rendering spraying machine.
Nivoplan's bonding properties can be improved by adding **Planicrete** and water to the product during mixing, approximately 2 litres per bag (used as a partial replacement for the mix water).
The addition of **Planicrete** is necessary for thin applications over concrete or in cases where the render will receive tile or natural stone coverings.
Nivoplan is classified as GP ("*General purpose mortar for internal/external render*"), category CS IV according to EN 998-1.

RECOMMENDATIONS

- **Nivoplan** must never be used on gypsum or gypsum-based surfaces, unless those surfaces have been prepared with one or two coats of **Primer G** (see relative Technical Data Sheet).
- **Nivoplan** is not suitable for smoothing over floors due to its limited compressive strength. In this case, please refer to the Technical Data Sheets regarding products for preparing substrates, or contact the MAPEI Technical Assistance Department.

APPLICATION PROCEDURE

Preparation of the substrate

The substrate must be compact, free of dust, loose parts and clean from oils, grease, paint or glue residues.
Nivoplan can also be applied to damp surfaces without any problem, but cure time will be slightly prolonged.
It is advisable to wet highly absorbent substrates (brick, foamed cement, etc.) before applying **Nivoplan**, especially if the layer is less than 3 mm thick.

Preparation of the mix

Nivoplan should be mixed with clean water and stirred until a smooth, lump-free paste is obtained. It is advisable to use a mechanical stirrer.

One 25-kg bag of **Nivoplan** should be mixed with 5-5.25 litres of water or with approx. 3.25 litres of water and 1-2 litres of **Planicrete**.
The **Nivoplan** mix remains usable for 2 hours after mixing.

Application of the mix

It is advisable to apply a first coat of **Nivoplan** to the substrate so as to ensure perfect coverage and then, without waiting, apply the layer necessary for good levelling, up to a maximum of 2 cm at a time.
Nivoplan can be applied with a rendering machine, with a flat trowel or screed (for thick layers) under firm pressure to make the mix adhere well to the substrate.
It is unadvisable to work in temperatures lower than +5°C.
A 1 cm thick layer of **Nivoplan** is strong enough to receive tiles after 12 hours in normal conditions (+23°C - 50% R.H.) on sub-layers with a normal level of absorption. If the surrounding temperature or the level of humidity are higher, it may be necessary to wait more than 24 hours.
The surfaces can be painted over after at least 2 weeks.
This time becomes longer in winter and shorter in summer.
When applying on walls directly exposed to the sun or wind, it is advisable to wet the surface of the **Nivoplan** to avoid premature curing.
Avoid application during windy conditions.

Cleaning

Tools and hands may be cleaned using water before the product sets.



Mixing with a mini cement-mixer



Restoring old brickwork



Levelling with a laying-on trowel



Levelling off the render with a straight-edge



Application of Nivoplan with a float

CONSUMPTION

Consumption depends on the thickness of the layer but typically is 1.5 kg/m² per millimetre of thickness (1 cm of thickness = 15 kg/m²).

PACKAGING

Nivoplan is available in 25 kg paper bags.

STORAGE

Nivoplan, in its original unopened packaging and in a dry place, can be stored for 12 months.

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.ae.

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION	
Consistency:	powder
Colour:	grey
Density:	1400 kg/m³
Dry solids content or active substance:	100%

APPLICATION DATA (at +23°C - 50% R.H.)	
Mix ratio:	20-21 parts water per 100 parts of **Nivoplan** by weight
Consistency of mix:	very pasty
Density of mix:	1700-1900 kg/m³
pH of mix:	approx. 12
Pot life:	2-3 h
Application temperature range:	from +5°C to +40°C
Thickness possible for one coat:	from 2 to 20 mm
Waiting time before bonding:	≥ 24 h dependent on the thickness applied, the temperature and the humidity
Waiting time before painting:	at least 14 days

FINAL PERFORMANCES			
Resistance to alkalis:		excellent	
Resistance to oils:		excellent (poor to vegetable oils)	
Resistance to solvents:		excellent	
Temperature range when in use:		from –30°C to +90°C	
Compatibility with adhesives:		excellent	
Flexural strength (N/mm²):		3.5	
Compressive strength (N/mm²):		6.0	
Performance characteristic	**Test method**	**Requirements according to EN 998-1 type GP-CSIV**	**Performance of product**
Compressive strength (MPa):	EN 1015-11	≥ 6 category CS IV	≥ 12 category CS IV
Bond strength on brickwork (MPa):	EN 1015-12	not required	≥ 1.0 FP: B

Water absorption (kg/(m²·min^{0,5}):	EN 1015-18	W0 (not specified) W1 (≤ 0.40) W2 (≤ 0.20)	W1
Thermal conductivity -λ- (W/m·K°):	EN 1745	not required	0.95
Coefficient of vapour permeability:	EN 1015-19	14-22	13.6
Reaction to fire:	Euroclass	Class declared by manufacturer	A1

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.ae.

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.ae.

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

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

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