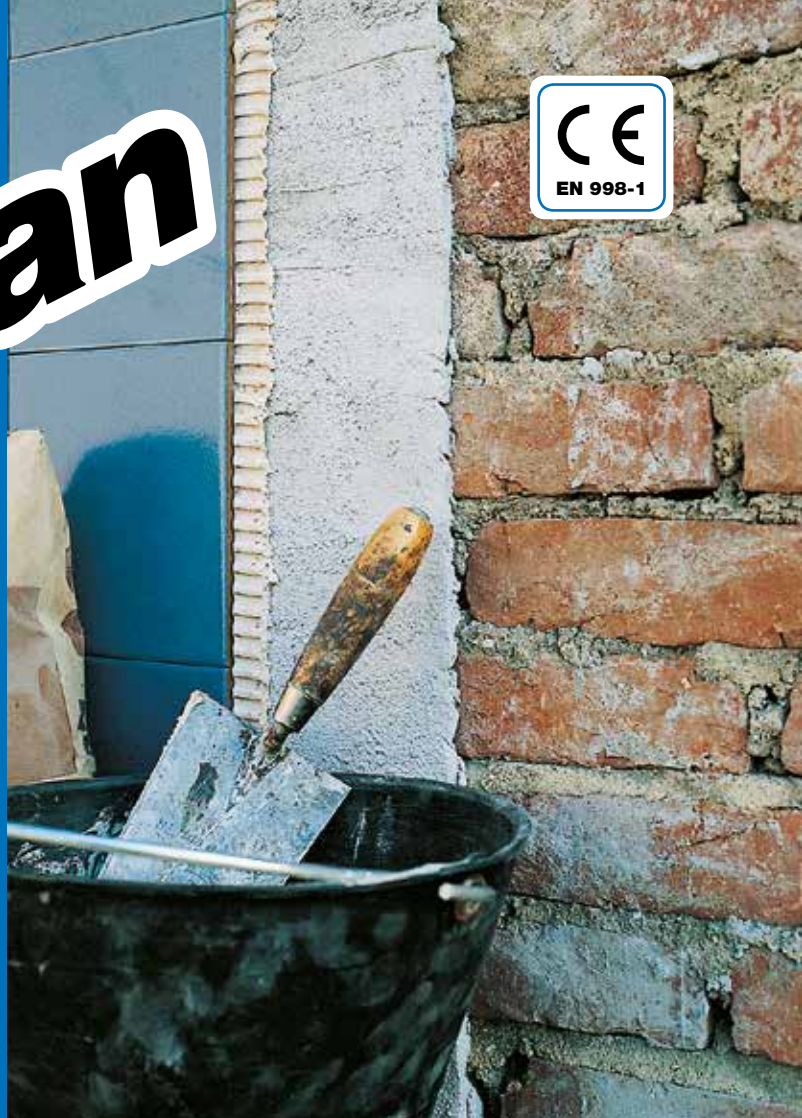




# Nivoplan

**Indoor and outdoor  
levelling mortar for  
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 a coat or two 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

### Preparing 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.

# Nivoplan



Mixing with a mini cement-mixer



Restoring old brickwork



Levelling with a laying-on trowel

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

|   |                |
|---|----------------|
| Consistency:                                | powder         |
| Colour:                                     | grey and white |
| Density (kg/m <sup>3</sup> ):               | 1,400          |
| Dry solids content or active substance (%): | 100            |

### APPLICATION DATA (at +23°C - 50% R.H.)

|                                       |  |
|---------------------------------------|--|
| Mix ratio:                            | 23-26 parts water per 100 parts of <b>Nivoplan</b> by weight |
| Consistency of mix:                   | very pasty   |
| Density of mix (kg/m <sup>3</sup> ):  | 1,830  |
| pH of mix:                            | approx. 12   |
| Pot life:                             | 2-3 hours  |
| Application temperature range:        | from +5°C to +30°C   |
| Thickness possible for one coat (mm): | from 2 to 20   |
| Waiting time before bonding:          | > 24 hours dependant on thickness and temperature            |
| 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/mm <sup>2</sup> ):    | 3.5                                |
| Compressive strength (N/mm <sup>2</sup> ): | 6.0                                |

| Performance characteristic                                  | Test method | Requirements according to EN 998-1 type GP-CSIV  | Performance of product |                     |
|---|-------------|--|------------------------|---------------------|
|   |             |  | White                  | Grey                |
| Compressive strength (MPa):                                 | EN 1015-11  | ≥ 6 category CS IV                               | ≥ 12 category CS IV    | ≥ 12 category CS IV |
| Bond strength on brickwork (MPa):                           | EN 1015-12  | not required                                     | ≥ 0.8 FP: B            | ≥ 1.0 FP: B         |
| Water absorption (kg/(m <sup>2</sup> ·min <sup>0.5</sup> ): | EN 1015-18  | W0 (not specified)<br>W1 (≤ 0.40)<br>W2 (≤ 0.20) | W0                     | W1                  |
| Thermal conductivity -λ- (W/m·K°):                          | EN 1745     | not required                                     | 0.95                   | 0.95                |
| Coefficient of vapour permeability:                         | EN 1015-19  | 14-22  | 17.3                   | 13.6                |
| Reaction to fire:   | Euroclass   | Class declared by manufacturer                   | A1                     | A1                  |



**Nivoplan** cannot be used on gypsum surfaces and the like, unless they are treated beforehand with **Primer G**.

#### Preparing 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 5.75-6.5 litres of water or with approx. 4.5 litres of water and 1-2 litres of **Planicrete**.

The **Nivoplan** mix remains usable for 2 hours after mixing.

#### Applying the mix

It is invariably 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** should 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 for laying tiles on substrates with normal absorption after 4-5 hours under normal temperature and humidity conditions.

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.

#### Cleaning

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

#### PACKAGING

**Nivoplan** is supplied in multi-layer-paper bags of 25 kg and should be stored in a dry place, where it will remain undeteriorated for at least 12 months.

#### STORAGE

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

The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.

#### CONSUMPTION

Consumption depends on the thickness of the layer but is 1.5 kg/m<sup>2</sup> per millimetre of thickness (1 cm of thickness = 15 kg/m<sup>2</sup>).

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Nivoplan** 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 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](http://www.mapei.com)

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**



Levelling off the render with a straight-edge



Application of Nivoplan with a float



**Nivoplan**



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**151-7-2016 (GB)**