

**Cementitious levelling mortar, with high adhesion and strength, for application in layers from 3 up to 50 mm.**

#### **CLASSIFICATION**

**Nivoplan Plus** is a cementitious levelling mortar, classified as CT - C20 - F5 - A1<sub>fl</sub> in compliance with EN 13813 Standards and according to EN 998-1.

#### **WHERE TO USE**

**Nivoplan Plus** is a mortar particularly suitable to level horizontal and vertical surfaces, for internal and external applications, and for local repairing, patching-up and levelling irregularities of the substrate. It can be used in layers from 3 to 50 mm to prepare substrates before laying ceramic tiles, natural stone, laminated panels and other finishing materials, such as skim coats, putties, decorative plasters etc. **Nivoplan Plus** is recommended for repairing and levelling the below listed types of substrates: cement-based substrates, cement and cement-lime renders, concrete, aerated concrete, brick walls, silicate or ceramic blocks walls and concrete blocks walls.

#### **Some application examples**

- Local repairing of defects on floors and walls.
- Levelling the uneven surfaces of floors, walls and ceilings before laying ceramic tiles and natural stone.
- Levelling the surface of concrete before installing ceramic tiles, waterproofing systems, etc.
- patching-up installation furrows.

#### **TECHNICAL CHARACTERISTICS**

**Nivoplan Plus** is a powdered, frost-resistant and water-resistant mortar, composed of cement, selected aggregates, synthetic resins and special additives according to a formula developed in R&D MAPEI laboratories.

**Nivoplan Plus**, when mixed with water, provides a mix that is easy to apply on vertical and horizontal surfaces. Thanks to its excellent application parameters application of the product may be carried out with a trowel or a rendering machine, in thickness of up to 50 mm within one work cycle.

#### **RECOMMENDATIONS**

**Nivoplan Plus** must never be used in the following cases:

- for preparing floating screeds (use **Topcem Pronto**);
- for preparing large-sized bonded screeds (space of 36 sq.m., 6 m side length, layer thickness 35 mm).
- on gypsum or gypsum-based surfaces, unless they have been primed with a coat of **Primer G** or **Eco Prim T**.
- in temperature below +5°C.

#### **APPLICATION PROCEDURE**

##### **Preparing the substrate**

Absorbent mineral substrates must be compact, sound, free of dust, loose parts, cracks and oils, grease, paint and any other substances that may reduce adhesion.

It is advisable to wet highly absorbent substrates (brick, cellular concrete, etc.) before applying **Nivoplan Plus** (especially if the layer is thin) until they become matt-damp.

Concrete substrates must be well cured, clean, free of dust, with no traces of cement laitance and release agents. If necessary, they should be primed with Eco Prim Grip.

Smooth substrates with reduced absorbency or non-absorbent ones (ceramic tiles, terazzo or smoothly finished concrete) must be clean, sanded and vacuumed, then primed with Eco Prim Grip.

Anhydrite screeds (0.5% humidity level or 0.3% humidity level for heated floors) and gypsum-based renders (1% humidity level) must be durable enough, and primed with Primer G or Eco Prim T after grinding and dust removal.

### Preparing the mix

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

One 25kg bag of **Nivoplan Plus** should be mixed with 3,75-4,25 litres of mixing water. The mix prepared this way remains workable for 2 hours after mixing has been finished.

### NOTE

If necessary and in case of extremely difficult applications (such as levelling concrete walls in pools), in the first place an initial coat of sludge based on **Planicrete** should be applied. Then, using "wet on wet" technique level the surface with modified **Nivoplan Plus** (add **Planicrete** to mixing water - 2,75-3 litres of water and 1-1,25 litres of **Planicrete** for 25 kg bag of the product).

For detailed information, please contact MAPEI Technical Dept. before installation works start.

### Applying the mix

It is advisable to apply the initial scratch coat of mortar so as to ensure perfect adhesion and then, without waiting, apply the layer with the thickness required. **Nivoplan Plus** can be applied with a rendering machine, with a flat trowel or steel float.

The final finishing coating can be carried out directly after mortar application with long, steel float or, in the initial curing stage, with felting.

### Tiles installation

Laying ceramic tiles can be started after levelling layer has dried. Drying time of 1 cm thick layer is approximately 6 hours for walls and approx. 12 hours for floors (in temp. +23°C and 50% R.H.). Drying time may shorten or lengthened due to layer thickness, ambient temperature, air humidity level and type of substrate. Prior to laying tiles prone to moisture, note that the layer of mortar must be dried enough. It is recommended to protect Nivoplan Plus layer from direct impact of sunlight, high temperature, quick drying especially during windy weather.

In necessary, protect the surface with sheets/foil. Fresh layer should be protected from rain and frost as well.

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

Floors are set to light foot traffic after approximately 12 hours.

#### **READY TO USE**

Floors are ready to use after approximately 7 days. Pools and tanks may be filled with water after min. 21 days.

#### **CONSUMPTION**

Depending on the thickness of layer: 1,5 kg/m<sup>2</sup> per millimeter of thickness

#### **Cleaning**

Tools and containers can be cleaned with water if Nivoplan Plus is fresh. When hardened, the product may be removed only mechanically.

#### **PACKAGING**

**Nivoplan Plus** is supplied in paper bags of 25 kg.

#### **STORAGE**

**Nivoplan Plus** can be stored 12 months in a dry place in original packaging.

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

#### **SAFETY INSTRUCTIONS FOR THE PREPARATION AND INSTALLATION**

**Nivoplan Plus** is irritant and contains cement when in contact with sweat or other bodily fluids, produces an allergic reactions to those predisposed. Risk of serious damage to eyes and be irritant for respiratory tracts. Use protective gloves and goggles. 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 report 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 applications: 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.*

#### **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 effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at [www.mapei.com](http://www.mapei.com).

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.

<b>TECHNICAL DATA</b>	
In compliance with EN 13813 as CT C20-F5 A1 <sub>fl</sub>	
<b>PRODUCT IDENTITY</b>	
Consistency:	powder
Colour:	grey
Bulk density:	1,4 g/cm <sup>3</sup>
Dry solid content:	100%
EMICODE:	EC1 <sup>PLUS</sup> R – very low emission of VOC
<b>APPLICATION DATA (at 23°C and 50% R.H.)</b>	
Mixing ratio:	25 kg bag of <b>Nivoplan Plus</b> with 3,75-4,25 l of water
Consistency of mix:	pasty
Density of mix:	1,90 -2,05 g/cm <sup>3</sup>
pH of mix:	ca.12
Pot life:	2 hours
Application temperature:	from +5 °C to +35 °C
Max. layer thickness:	3-50 mm
Beginning of curing process:	4-5 hours
End of curing process:	at least 14 days
Reaction to fire:	A1 <sub>fl</sub>
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to solvents:	excellent
Temperature resistance:	from -30°C to +90°C
Adhesion of the adhesive:	excellent
Compressive strength:	≥ 20,0 N/mm <sup>2</sup>
Flexural strength:	≥ 5,0 N/mm <sup>2</sup>