MAPEI

Nivorapid

Ultra-fast setting, thixotropic, cementitious levelling mortar for horizontal or vertical surfaces, from 3 to 20 mm thick layer

WHERE TO USE

Nivorapid is used for repairing, levelling and smoothing interior floors, walls, steps and arrises where very rapid hardening and drying are required.

Some application examples

- Smoothing concrete slabs and **Mapecem, Mapecem Pronto, Topcem, Topcem Pronto** (prime first), anhydrite, and magnesium based screeds as well as cast asphalt.
- Smoothing terrazzo, ceramic, natural stone or heated floors.
- Smoothing concrete walls, cementitious renders, foamed concrete blocks and ceramic.
- Repair or levelling steps, landings and edges of pillars.
- Filling depressions and holes in floors, walls and ceilings.

By adding **Latex Plus** to **Nivorapid**, levelling with excellent bonding strength on metal surfaces, old rubber floors, PVC, needlepunch, chipboard, parquet, linoleum or similar (see Technical data sheet n. 114) is obtained.

TECHNICAL CHARACTERISTICS

Nivorapid is a grey-brown powder composed of cementitious binders, selected graded aggregates and synthetic additives prepared according to a formula developed in the MAPEI research laboratories.

Nivorapid mixed with water becomes an easily workable thixotropic paste with high bonding strength to substrates and rapid drying which allows subsequent installation operations for floor and wall coverings, or painting, within only 4-6 hours after application.

Nivorapid hardens without shrinkage and without the formation of cracks or crazing. It develops high compressive and flexural strength and is very resistant to impact and abrasion.

RECOMMENDATIONS

- In case of very high temperature and if more than 10 mm is needed, it is recommended to add approx. 30% graded sand 0-4 mm to avoid that the high hydration heat provokes alterations in the final characteristics of the product.
- Do not exceed the quantity of water indicated and do not add more water to a mix that has already started to harden.
- Use **Planipatch** when a particularly fine final surface is needed and for thicknesses lower than 3 mm.

Nivorapid

Nivorapid mixed with mechanical mixer

Grouting a plywood substrate with Nivorapid + Latex Plus

Repairing vertical arrise with Nivorapid

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Consistency:	fine powder
Colour:	grey-brown
Bulk density (kg/m³):	1400
Dry solids content (%):	100
Storage:	12 months in a dry place in original packaging
Hazard classification according to EC 99/45:	none. Before using refer to the “Safety instructions for the preparation and application” paragraph and the information on the packing and Safety Data Sheet
Customs class:	3824 50 90
COMPOSITION AND PROPERTIES OF THE MIXTURE at +23°C - 50% R.H.	
Mixing ratio:	19-21 parts water per 100 parts of **Nivorapid**
Thixotropic properties:	yes
Density of mix (kg/m³):	1900-2000
pH of mix:	approx. 12
Application temperature range:	from +5°C to +30°C
Pot life:	15 minutes
Setting time:	20 minutes
Set to light foot traffic:	approx. 2 hours
Waiting time before subsequent bonding:	after 4-6 hours
FINAL PERFORMANCES	
Compressive strength (N/mm²):	
– after 6 hours:	25
– after 1 day:	30
– after 3 days:	35
– after 7 days:	37
– after 28 days:	40
Flexural strength (N/mm²):	
– after 6 hours:	4
– after 1 day:	5
– after 3 days:	7
– after 7 days:	8
– after 28 days:	10
Brinell hardness (N/mm²):	
– after 6 hours:	50
– after 1 day:	80
– after 3 days:	90
– after 7 days:	95
– after 28 days:	120

- Do not add cement, gypsum plaster or lime to the mix.
- Do not use for exteriors.
- Do not use on substrates subject to continuos rising damp.
- Do not use when the temperature is below +5°C.
- Protect from rapid evaporation on hot and/or windy days.
- Prior to use do not leave bags of **Nivorapid** exposed to sunlight for long periods of time.
- For levelling and localised grouting on wood supports, use **Nivorapid** mixed with **Latex Plus** in place of water.

APPLICATION PROCEDURE

Preparing the substrate

The substrates must be solid, dry, free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.

Cement based surfaces that are not sufficiently solid must be removed or where possible consolidated with **Prosfas, Primer EP** or **Primer MF**.

Spread dry sand or **Quartz 1.2** over the surface immediatly after the treatment of one of the above mentioned products.

Cracks and fissures in the substrate must be repaired with **Eporip** or **Eporip Turbo**.
In order to fix dust and to provide uniform absorbency of the substrate, dusty or very porous concrete surfaces must be treated with a coat of diluited **Primer G** (1 kg of **Primer G** with 1-3 kg of water) or **Livigum** (1 kg of **Livigum** with 5 kg of water).
Anhydrite screeds can be levelled with **Nivorapid** only after the application of a coat of **Primer G** or **Primer EP** over the surface that will be covered with sand.
On existing ceramic or natural stone surfaces apply a coat of **Mapeprim SP** or **Mapeprim 1K** after the surfaces have been cleaned with detergents and mechanically abraded. Level before **Mapeprim SP** or **Mapeprim 1K** has dried completely (it must still be impressionable).

Preparing the mix

While mixing with a low speed electric mixer, pour a 20 kg bag of **Nivorapid** into a bucket containing 4.2 litres of clean water and mix until uniform paste, without lump, is obtained. The quantity of **Nivorapid** mixed in each batch should be used within 15 minutes (at a temperature of +20°C).

Applying the mix

Apply the mix with a long metal trowel. When it is necessary to apply several coats in rapid succession proceed with subsequent coats (distanced about 20-30 minutes according to the temperature and the absorption rate of the substrate).
The surface of **Nivorapid** is ready to receive ceramic tile coverings already after 4-6 hours. Wooden and resilient floors can be laid after 24 hours.

Cleaning

While it is still fresh **Nivorapid** can be removed from hands and tools with water.

CONSUMPTION

1.6 kg/m² per mm of thickness.

PACKAGING

Nivorapid is available in 20 kg bags.

STORAGE

Stored in a dry place **Nivorapid** is stable for at least 12 months.
A prolonged storage of **Nivorapid** could, over time, shorten setting time, without however altering its final characteristics.
Manufactured in compliance with the regulations of the 2003/53/EC Directive.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Nivorapid contains cement, that in contact with sweat or other body fluids produces an irritant alkaline reaction. Use protective gloves and goggles. For further information consult the safety data sheet.

FOR PROFESSIONALS.

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.

All relevant references of the product are available upon request

Filling holes with Nivorapid

Levelling of existing floor with Nivorapid

Repairing horizontal arrises with Nivorapid

Nivorapid

Steps before and after being treated with Nivorapid

(AUS) A.G. BETA

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