NIVORAPID

Ultra-fast setting, thixotropic, cementitious levelling compound for horizontal and vertical surfaces, from 1-20 mm thick layer.

CLASSIFICATION ACCORDING TO EN 13813

The smoothing compounds prepared with **Nivorapid** in compliance with the prescriptions present in this technical data sheet are classified as CT-C40- F10-A2FL-s1 according to European Norm 13813.

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. Can be used under most types of floor coverings.

Some application examples

· Smoothing concrete slabs and screeds made with **Mapecem**, **Mapecem Pronto**, **Topcem Pronto**, 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 bond strength on metal surfaces, old rubber floors, PVC, chipboard, parquetry, linoleum or similar (see technical data sheet for **Latex Plus**) is obtained.

TECHNICAL CHARACTERISTICS

Nivorapid is a grey-brown powder composed of cementitious binders, selected graded aggregates and synthetic admixtures prepared according to a formula developed in the MAPEI research laboratories.
Nivorapid mixed with water becomes an easily workable thixotropic paste with high bond 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 or if more than 20 mm is needed, it is recommended to add approx. 30% graded sand 0-4 mm to avoid high hydration heat from provoking 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 **Planiprep SC** when a particularly fine final surface is needed and for thicknesses lower than 1 mm.
· Do not use for exteriors.
· Do not add cement, gypsum plaster or lime to the mix.
· Do not use on substrates subject to continuous rising damp.
· Do not use when the temperature is below +5°C.
· Protect from rapid evaporation on hot 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 sound, dry, free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.
Cement based surfaces that are not sufficiently sound must be removed or where possible consolidated with **Primer MF** or **Mapeproof 1K Turbo**.
Spread dry sand or **Quartz 0.9 AU** over the surface immediately after the application.
Cracks and fissures in the substrate must be repaired with **Eporip** or **Eporip Turbo**.
To provide uniform absorbancy of the substrate treat with **Eco Prim T Plus** diluted 1:2 with water.
Prime existing ceramic and natural stone substrates with a coat of **Eco Prim Grip** after mechanically abrading and cleaning the surface with a suitable detergent. Leave the primer to dry for 30-60 minutes, according to the temperature and humidity level of the surrounding environment, and then spread on a layer of levelling mortar.

Preparing the mix

While mixing with a low speed electric mixer, pour a 20 kg bag of **Nivorapid** into a bucket containing 4.2-4.6 litres of clean water and mix until a uniform lump-free paste is obtained.
The quantity of **Nivorapid** mixed in each batch should be used within 15-25 minutes (at a temperature of +23°C).

Preparing the mix with Latex Plus

Add 4.6-7.2 kg of **Latex Plus** to a clean bucket (depending of required viscosity) and slowly add a 20 kg bag of **Nivorapid**.
Mix with a low speed electric mixer (approx. 300 RPM) until a uniform lump-free mortar is obtained.
The quantity of **Nivorapid** mixed should be used within 15 minutes at +23°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). Ceramic, resilient, textile and timber floor coverings can be installed after 4-6 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.

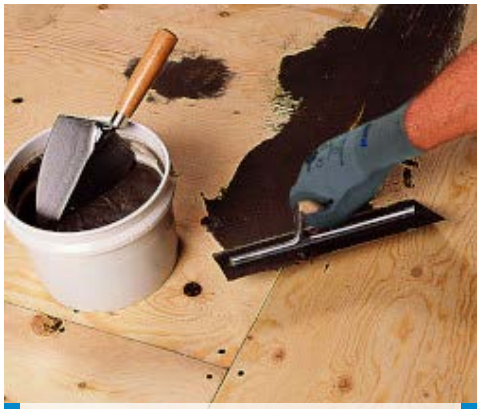
STORAGE

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

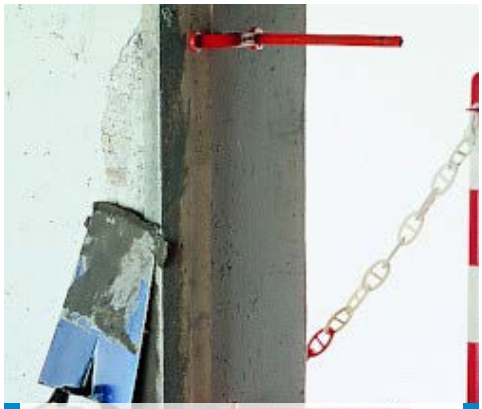
SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet available for download from our website at www.mapei.com.au.
PRODUCT FOR PROFESSIONAL USE

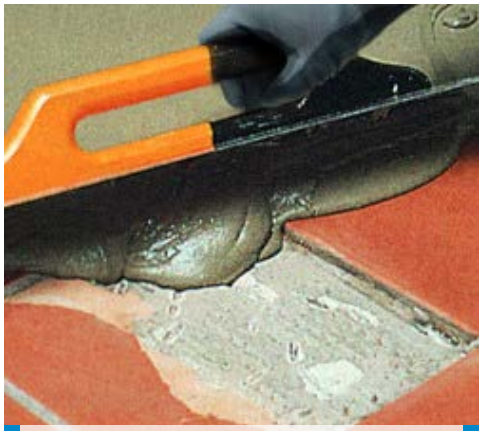
Nivorapid mixed with mechanical mixer



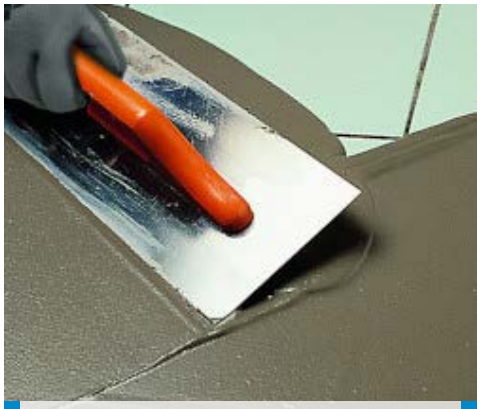
Grouting a plywood substrate with Nivorapid + Latex Plus



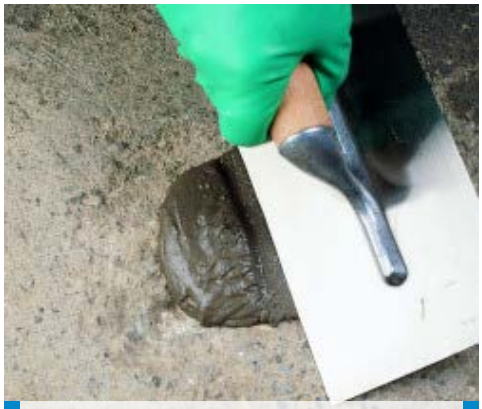
Repairing vertical surface with Nivorapid



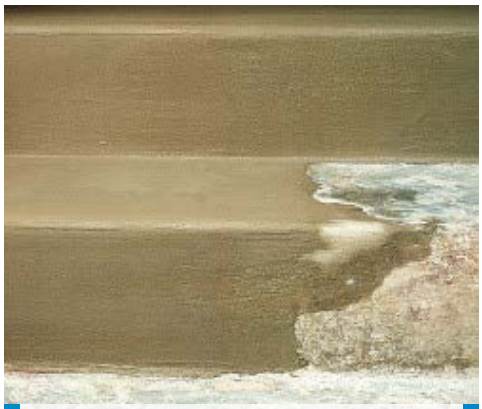
Filling holes with Nivorapid



Levelling of existing floor with Nivorapid



Repairing horizontal arrises with Nivorapid



Steps before and after being treated with Nivorapid

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	fine powder
Colour:	grey-brown
Bulk density (kg/m³):	1,400
Dry solids content (%):	100
EMICODE:	EC1 Plus—very low emission
APPLICATION DATA (at +23°C - 50% R.H.)	
Mixing ratio:	21-23 parts water per 100 parts of Nivorapid or 23-36 parts Latex Plus per 100 parts of Nivorapid
Thixotropic properties:	yes
Density of mix (with water) (kg/m³):	1,900-2,000
pH of mix:	approx. 12

Application temperature range:	from +5°C to +30°C
Pot life:	15 minutes
Setting time:	15-25 minutes
Set to light foot traffic:	60-90 minutes
Waiting time before subsequent bonding:	after 4-6 hours
FINAL PERFORMANCES	
Compressive strength (N/mm²): **– after 6 hours:** **– after 1 day:** **– after 3 days:** **– after 7 days:** **– after 28 days:**	 25 30 35 37 40
Flexural strength (N/mm²): **– after 6 hours:** **– after 1 day:** **– after 3 days:** **– after 7 days:** **– after 28 days:**	 4 5 7 8 10
Brinell hardness (N/mm²): **– after 6 hours:** **– after 1 day:** **– after 3 days:** **– after 7 days:** **– after 28 days**	 50 80 90 95 12

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.au

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