



# Novoplan<sup>®</sup> Easy Plus

**Easy-Preparation, Self-  
Leveling Underlayment**



## DESCRIPTION

*Novoplan Easy Plus* is an improved, high-strength, self-leveling, calcium-aluminate-based underlayment and repair mix for interior concrete and engineer-approved floors. Its unique formulation allows for direct application on substrates that are clean, securely bonded and properly primed.

## FEATURES AND BENEFITS

- Mechanical profiling not required, which simplifies installation
- Easy to mix; flows smoothly
- Accepts tile/stone within 16 hours and other flooring coverings within 36 hours

## INDUSTRY STANDARDS AND APPROVALS

LEED Points Contribution

LEED Points

MR Credit 5, Regional Materials\* ..... Up to 2 points

*\* Using this product may help contribute to LEED certification of projects in the category shown above. Points are awarded based on contributions of all project materials.*

## WHERE TO USE

- For leveling, smoothing and repairing of interior residential or commercial floors before the installation of flooring systems and coverings
- For use over radiant-heated floors or to encapsulate hydronic or electric radiant-heated floors
- Interior residential (rental apartments, condominiums and homes)
- Interior commercial (office buildings, hotel rooms/hallways, restaurants and cafeterias)

- Interior heavy commercial (hotel lobbies, convention centers, airports, shopping malls, grocery stores and department stores)
- Interior institutional (hospitals, schools, universities, libraries and government buildings)

## LIMITATIONS

- Do not mix with other self-leveling underlayments.
- Do not install over flooring products, over adhesives or over substrates containing asbestos.
- For interior use only
- Do not use as a final wear surface. *Novoplan Easy Plus* must be covered with a finished floor system.
- Install *Novoplan Easy Plus* in temperatures between 50°F and 85°F (10°C and 29°C). If the product must be installed in temperatures above 85°F (29°C), follow American Concrete Institute (ACI) hot-weather application guidelines to ensure a successful installation.
- Do not install over moving control joints (with active cracks) or over expansion joints.
- If the substrate has a moisture vapor emission rate (MVER) exceeding 5 lbs. per 1,000 sq. ft. (2,27 kg per 92,9 m<sup>2</sup>) per 24 hours using a calcium chloride test (reference ASTM F1869), and a relative humidity (RH) reading greater than 80% (ASTM F2170), use a MAPEI epoxy moisture barrier. Consult MAPEI's Technical Services Department for product recommendations.
- Do not install *Novoplan Easy Plus* over sheet vinyl or self-stick vinyl tile; LVT or LVP (luxury vinyl tile or luxury vinyl plank); glue-down wood flooring; particleboard; chipboard; hardboard (Masonite); Lauan panels; crack-isolation or sound-control membranes; gypsum-based patching

materials; or any other nondimensionally stable materials.

- Do not install if the maximum allowable deflection of the supporting surface exceeds L/360 (or L/720 for installations involving natural stone or their agglomerates) when exposed to live or dead loads.

## SUITABLE SUBSTRATES

- Properly prepared, sound, dimensionally stable, fully cured concrete at least 28 days old and free from hydrostatic pressure
- Properly prepared, well-bonded and dimensionally stable ceramic, porcelain, and quarry tile, natural stone, vinyl composition tile (VCT), cement, epoxy-based moisture barriers and epoxy terrazzo
- Properly installed cement backer units
- Durable, sound, stable and fully cured cement-based mortar beds
- Engineer-approved plywood or oriented strand board (OSB) subfloors in accordance with the most recent edition of the Tile Council of North America's F185 specification. Before a MAPEI underlayment is applied over plywood flooring, ASTM C847 specifications for finished flooring, load, use and/or deflection may require a synthetic lath such as *Mapelath™* or an appropriate diamond mesh on top of the primed surface.
- Existing nailed-down wood flooring (including plank wood subfloors, strip wood subfloors or nailed-down solid wood flooring) that has been covered over with at least one layer of 5/8" (16 mm) plywood, glued and screwed
- Gypsum-based underlayments (refer to MAPEI Technical Bulletin #010313-TB, "Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?")

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

## SURFACE PREPARATION

1. All substrates must be properly prepared and structurally sound, stable, solid and dry.
2. Concrete surfaces must be clean and free of any substance that could interfere with the bond of the installation material, including dust, dirt, paint, tar, asphalt, wax, oil, grease, concrete sealers, curing compounds, form release agents, laitance, loosely bonded toppings, foreign substances and adhesive residues.
- 3a. For concrete substrates, fill in deep areas, holes and cracks with an appropriate MAPEI patching compound or screed. Otherwise, fluid self-leveler may leak through to a floor below or into unwanted cavities.
- 3b. For plywood substrates, fill joints with an acrylic-based caulking compound to prevent *Novoplan Easy Plus* from leaking into a floor below.
4. All substrates must be primed with an appropriate MAPEI primer before applying a self-leveler. See MAPEI's "Primers for Self-Leveling Materials" product

selection guide, RGC0609, and the appropriate primer's Technical Data Sheet.

5. Refer to Reference Guide RGF0214, "Surface-Preparation Requirements for Self-Leveling Underlayments," for details on proper surface preparation.

## MIXING

Choose all appropriate safety equipment before use. Refer to the Safety Data Sheet for details.

### General mixing

1. Mix water and *Novoplan Easy Plus* powder at a mixing ratio of 5 to 5.28 U.S. qts. (4,73 to 5,0 L) of water per 50-lb. (22,7-kg) bag of powder.
2. Measure and pour the required amount of cool, clean potable water for the number of bags to be mixed into a clean mixing vessel (mixing barrel or plastic pail measuring 5 U.S. gals. [18,9 L]). For best results, the water temperature should be at about room temperature (70°F [21°C]). The mixing ratio must remain consistent; do not overwater the *Novoplan Easy Plus* material.
3. Slowly add the *Novoplan Easy Plus* powder into the pre-measured water. Use a high-speed drill and an oval paddle mixer to mix the *Novoplan Easy Plus* into to a homogenous, lump-free consistency. Continue to mix according for 2 to 3 minutes. Do not overmix. Overmixing or moving the mixer up and down during the mixing process could trap air or cause pinholing during the application and curing process.

### Pump mixing

1. *Novoplan Easy Plus* can be mechanically mixed with a continuous mixer and pump (and at least 140 ft. [42,7 m] of hose), or with a batch mixer and pump (and at least 110 ft. [33,5 m] of hose). Mix at a ratio of 5 to 5.28 U.S. qts. (4,73 to 5,0 L) of water per 50-lb. (22,7-kg) bag of powder. Periodic cleaning of pumping equipment may be required per the manufacturer's instructions. Use a mesh screen "sock" at the end of the hose to catch any foreign material that may have fallen into the hopper during mixing. To ensure a suitable mix and flow, test the mixed material from the pump hose's end in a small test area before general application.

## PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Concrete substrates and ambient room temperatures should be maintained between 50°F and 85°F (10°C and 29°C) during application as well as for 72 hours before and after application.
2. Before product installation, close doors and windows, and turn off HVAC systems to prevent drafts during application and until the underlayment is cured. Protect areas from direct sunlight.
3. Quickly pour or pump *Novoplan Easy Plus* onto the properly prepared and primed surface in a ribbon pattern. Set the width of the pour at a distance that is ideal for maintaining a wet edge throughout placement. If a wet edge cannot be maintained, reduce the width of the pour. For best results, work as a team to provide

**Product Performance Properties** at 72°F (22°F) and 50% RH

Laboratory Tests	Results
Cured density	128 lbs. per cu. ft. (2,06 kg per L)
pH	11
Compressive strength – ASTM C349	
1 day	> 2,000 psi (13,8 MPa)
7 days	> 3,000 psi (20,7 MPa)
28 days	> 3,500 psi (24,1 MPa)
Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C)	
28 days	> 750 psi (5,17 MPa)

**Shelf Life and Properties (before mixing)**

Shelf life	6 months in unopened plastic bag stored at 72°F (23°C) and 50% RH
Physical state	Powder
Color	Gray

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

**Application Properties**

Temperature application range	50°F to 85°F (10°C and 29°C)
Pot life	15 minutes
Slump test	5.5" (14 cm)
Flow time	Up to 15 minutes
Single-lift application range	Featheredge to 1" (2,5 cm)
Minimum thickness over highest point in floor	1/8" (3 mm)
Drying time before installation of tile and stone floor coverings at 72°F (22°C)	16 hours
Drying time before installation of other floor coverings at 72°F (22°C)	36 hours

**Packaging**

Size
Plastic bag: 50 lbs. (22,7 kg)

**Approximate Coverage\*** per 50 lbs. (22,7 kg)

Thickness	Coverage
1/8" (3 mm)	48 sq. ft. (4,46 m²)
1/4" (6 mm)	24 sq. ft. (2,23 m²)
1/2" (12 mm)	12 sq. ft. (1,11 m²)
3/4" (19 mm)	9 sq. ft. (0,83 m²)
1" (2,5 cm)	6 sq. ft. (0,56 m²)

\* Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions, type of equipment, thickness applied and applications methods used.

**CSI Division Classification**

Cast Underlayment	03 54 00
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a continuous flow of wet material, to avoid trapping air or creating a cold joint. Apply enough material to adequately cover all high spots.

4. Shortly after placing the *Novoplan Easy Plus*, use a gauge rake to spread the material and assist in gauging it to the desired depth. After achieving the desired depth, use a smoother to obtain an even surface.
5. For pours deeper than 1" (2,5 cm), use clean, washed, dry, nonreactive aggregate or pea gravel measuring 1/8" to 3/8" (3 to 10 mm) in diameter. Pre-place the aggregate/gravel over the primed surface at no more than half of the total pour depth. Pour *Novoplan Easy Plus* over placed aggregate, and rake aggressively to ensure full contact and bond with the substrate. Alternately, up to 30% by weight in aggregate can be added directly to *Novoplan Easy Plus* during mixing. Then immediately pour an additional 1/4" (6 mm) of *Novoplan Easy Plus* over the raked aggregate to provide a smooth, level surface.

Note: Use only clean, washed, dry, stable aggregates. Do not use limestone or other potentially reactive aggregates for extension.

6. If applying a second coat of *Novoplan Easy Plus*, wait 3 hours after the first pour to use an appropriate MAPEI primer.

## CURING

- *Novoplan Easy Plus* is self-curing; do not use a damp-curing method, or curing and sealing compounds.
- Cool-weather conditions may extend cure or set times. Warmer weather conditions may accelerate working, cure and set times.

## CLEANUP

- Wash hands and tools with water promptly before the material hardens. Cured material must be mechanically removed.

## PROTECTION

- Protect *Novoplan Easy Plus* from direct sunlight, excessive heat and drafty conditions during curing.

Turn off all forced ventilation and radiant heating systems, and protect the installation for up to 24 hours after completion.

- Avoid walking on the installed surface for at least 2 to 3 hours after installation, depending upon temperature and humidity conditions.
- Protect the installation from traffic, dirt and dust from other trades until *Novoplan Easy Plus* is completely cured and final flooring has been installed.
- Do not expose *Novoplan Easy Plus* to rolling dynamic loads, such as fork lifts or scissor lifts, for at least 72 hours after installation.

## RELATED DOCUMENTS

Reference Guide: "Surface-Preparation Requirements for Self-Leveling Underlayments"	RGF0214*
Product Selection Guide: "Primers for Self-Leveling Materials"	RGC0609*

\* At [www.mapei.com](http://www.mapei.com)

Refer to the SDS for specific data related to VOCs, health and safety, and handling of product.

## STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



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