Version: September 23, 2021

MAPEI®

Mapefloor™ I 320 SL Concept NA

Two-Component, Self-Leveling, Epoxy Coating with Colored Granular Finish for Decorative Floors

DESCRIPTION

Mapefloor I 320 SL Concept is a two-component, self-leveling, epoxy coating with a colored granular finish for decorative floors.

FEATURES AND BENEFITS

- Good chemical and mechanical resistance
- Low viscosity
- Easy to apply
- Good healing ability; resistance to abrasion is higher than that of traditional self-leveling systems
- Attractive finish

WHERE TO USE

- Suitable for use in public areas such as bars, hotel lobbies, offices, canteens, classrooms and showrooms

LIMITATIONS

- Apply *Mapefloor I 320 SL Concept* only on substrates that have received adequate preparation.
- Do not dilute *Mapefloor I 320 SL Concept* with solvents or water.
- Do not apply *Mapefloor I 320 SL Concept* on dusty or weak substrates.
- Do not apply *Mapefloor I 320 SL Concept* on substrates with oil, grease or dirt.
- Do not mix partial quantities of the components; otherwise, the product may not perform adequately.
- Do not expose the mixed product to sources of heat.
- The coating may change color if it is exposed to aggressive chemicals. A change of color, however, does not mean that the chemicals have damaged the coating.
- If corrosive substances come into contact with *Mapefloor I 320 SL Concept*, remove them immediately.
- Use only between the ambient and substrate temperatures of 46°F and 95°F (8°C and 35°C).
- Do not use on exterior, on-grade surfaces.
- Ensure that *Mapefloor I 320 SL Concept* is protected from water and condensation for at least 24 hours after application.
- Ensure that the temperature of the concrete is at least 5 degrees Fahrenheit (2.8 degrees Celsius) above the dew point during the application and curing of *Mapefloor I 320 SL Concept*.
- Test the concrete substrate using appropriate methods for testing calcium chloride (ASTM F1869) and methods for testing surface moisture content (ASTM F2170). *Mapefloor I 320 SL Concept* can be applied when an effective moisture vapor retarder exists under the concrete (for slab on- or below-grade), and at MVER values of no more than 5 lbs. per 1,000 sq. ft. (2.27 kg per 92.9 m^2) and relative humidity values (RH) of no more than 85% with records confirming that the moisture is still dissipating (i.e., moisture levels are dropping).

SUITABLE SUBSTRATES

- Substrates such as concrete, cementitious screeds and polymer-modified self-leveling screeds, which must be sound and dry, with a compressive

Mapefloor I 320 SL Concept NA

strength of more than 3,600 psi (24.8 MPa) and a pull-off strength more than 200 psi (1.38 MPa).

- Before application of *Mapefloor I 320 SL Concept*, determine the substrate's moisture content as well as the RH and dew point.

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

SURFACE PREPARATION

- Surfaces to be treated must be flat, clean, sound and dry, and must not have capillary rising dampness.
- The surface of the floor must be prepared mechanically. Any cement laitance, dirt, crumbling, weak or detached portions present on the surface to be treated must be removed using suitable mechanical process (e.g., shotblasting or diamond grinding) to achieve a concrete surface profile of #2 to #4 according to the ICRI classification, and to make the surface slightly rough and absorbent.
- Fill in static cracks with *Epojet*™ or *Epojet LV*. Dynamic cracks should be honored through the coating system, unless otherwise directed by engineer of record.
- High spots must be removed by grinding to achieve a level surface.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet (SDS) for details.

1. To ensure that all solids are evenly dispersed, mix Part A of *Mapefloor I 320 SL Concept* mechanically for about 1 minute.
2. Pour all of the Part B hardener into the Part A container and mix thoroughly to a smooth, homogenous consistency.
3. Do not mix at high speeds or overmix, which can trap air within the mixed material. Use an adequate mixing paddle with a low-speed drill mixer (at 300 to 400 rpm).
4. During the mixing process, scrape down the sides and bottom of the container to completely mix all of the components.
5. Apply the mixed *Mapefloor I 320 SL Concept* within the pot life indicated in the table below. Higher ambient and substrate temperatures will reduce the pot life of the mix, while lower temperatures will increase its pot life, increase the viscosity and affect coverage.

** *Note when using* Mapefloor I 320 SL Concept, *make sure all product batch/lot numbers are the same for each project. Consult MAPEI's Technical Services Department for installation recommendations regarding use of the* Mapefloor I 320 SL Concept.

PRODUCT APPLICATION

Read all instructions thoroughly before installation.

1. Before application, confirm the substrate's moisture content, RH and temperature in relation to dew point. See the "Limitations" section for details.
2. First coat: Apply a priming coat of *Primer SN*™ at 9 to 15 mils with a serrated trowel or squeegee. Back-roll with a short-pile roller (in a criss-cross pattern) and broadcast with #32 mesh quartz sand at 0.614 lbs. per sq. ft. (0.29 kg per 0.09 m^2), which will create a slip-resistant surface.
3. Finishing coat: Apply a finishing coat of *Mapefloor I 320 SL Concept* at 5/64" (2 mm) with a serrated trowel or screed rake, and back-roll with a spike roller.

CLEANUP AND MAINTENANCE

- Clean all tools and equipment with a suitable solvent, such as xylene. Hardened or cured material must be mechanically removed.
- For details, refer to the *Mapefloor* Resin Flooring: Maintenance Instructions reference guide.

MAPEI

Product Performance Properties at 73°F (23°C) and 50% RH

Laboratory Tests	Results
Specific gravity – ASTM D1475	
Part A	11.93 lbs. per U.S. gal. (1.43 kg per L)
Part B	8.51 lbs. per U.S. gal. (1.02 kg per L)
Mix (Parts A and B)	11.10 lbs. per U.S. gal. (1.33 kg per L)
Viscosity at 76°F (24.4°C)	4,960 cps
Compressive strength – ASTM D695	
7 days	5,716 psi (39.4 MPa)
Tensile strength – ASTM D638	2,907 psi (20.0 MPa)
Elongation – ASTM D638	4.7%
Pull-off strength – ASTM D7234	> 380 psi (2.62 MPa), substrate failure
Surface hardness – ASTM D2240	24 hours: 69 7 days: 77 28 days: 80
Abrasion resistance – ASTM D4060	
CS17/1000 cycles, 2.2 lbs. (1 000 g)	-0.0032 U.S. oz. (-0.092 g)
Coefficient of friction – ASTM D1894	Steel Static: 0.80 Kinetic: 0.57 Neolite rubber Static: 1.12 Kinetic: 0.96
Gloss (60 degrees) – ASTM D523	68
Water absorption – ASTM D570	0.26%
VOCs (Rule #1113 of California's SCAQMD)	24 g per L

Shelf Life and Product Characteristics before mixing

Shelf life and storage	1 year when stored in original, unopened packaging. Store at 41°F to 95°F (5°C to 35°C).
Physical state	Part A: Liquid Part B: Liquid
Colors	Part A (pre-pigmented per the colors listed below) Part B: Straw yellow Dark Blue Light Blue Dark Gray Light Gray Red

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

	At 46°F (8°C)	At 55°F (13°C)	At 73°F (23°C)
Pot life for 8.8 U.S. oz. (250 g) Gel timer: Shyodu Model 100	4 hours	3 hours	84 minutes
Drying time recorders (Stage B, tack-free time) – ASTM D5895	24 hours	16 hours	7 hours
Foot traffic permitted	About 36 hours	About 20 hours	About 10 hours
Light traffic permitted	4 days	3 days	1 day
Normal traffic and chemical exposure permitted	> 28 days	14 days	6 days

Approximate Coverage* per mixed unit

Thickness	Coverage
5/64" (2 mm)	65 to 70 sq. ft. (6.04 to 6.50 m^2)

** Coverage varies depending on the desired build as well as the profile and porosity of the substrate.*

Packaging

Size	
Mapefloor I 320 SL Concept unit	37 lbs. (16.8 kg)
Part A	30 lbs. (13.8 kg)
Part B	7 lbs. (3 kg)

Refer to the SDS for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

We proudly support the following industry organizations:

MAPEI Headquarters of North America
1144 East Newport Center Drive
Deerfield Beach, Florida 33442
1-888-US-MAPEI (1-888-876-2734) /
(954) 246-8888

Technical Services
1-888-365-0614 (U.S. and Puerto Rico)
1-800-361-9309 (Canada)

Customer Service
1-800-42-MAPEI (1-800-426-2734)

Services in Mexico
0-1-800-MX-MAPEI (0-1-800-696-2734)

Edition Date: September 7, 2021
MK 3002046 (21-2466)