

Decor System 70

SOLVENT-FREE EPOXY-POLYURETHANE SYSTEM FOR DECORATIVE FLOORS WITH A TROWEL-EFFECT FINISH. EXCELLENT RESISTANCE TO WEAR FOR SHOWROOMS. APPLIED AT A THICKNESS OF FROM 1.5 TO 3 mm

Products used:

Primer SN - 0.5 Quartz - Mapefloor Decor 700 - Mapecolor Paste - Mapefloor Finish 50 or Mapefloor Finish 52 W

DESCRIPTION

DECOR SYSTEM 70 is an epoxy-polyurethane system which may be used to create decorative floors with high resistance to chemicals. Impermeable to oil and aggressive agents and resistant to frequent cleaning cycles.

DECOR SYSTEM 70 finishes also have an irregular, matt effect with an attractive finish.

WHERE TO USE

Decorative flooring coating subject to medium traffic where a smooth or rippled finish is required, such as in shops, apartments, showrooms, shopping centres and offices.

DECOR SYSTEM 70 may be used in:

- general commercial centres;
- exposition areas;
- showrooms;
- department stores;
- shopping centres.

PERFORMANCE AND ADVANTAGES

- A smooth or rippled finish, according to the application technique used.
- Solvent-free, therefore safe for the environment.
- Long-lasting, characterised by its high resistance to wear and abrasion from continuous pedestrian traffic and frequent cleaning cycles.
- Resistant to most chemical products, such as diluted acids, base products, oil and fuel.
- Thanks to this product's excellent aesthetic properties, it is particularly suitable for exposition areas.
- Easy to clean and sterilize and easy to decontaminate, which makes it particularly recommended for use in the food industry, especially in areas with medium traffic.
- May be used to form highly attractive, flat, single-spread floors with high functional characteristics.

- Quick to apply, and may be applied in various thicknesses.
- Guarantees an excellent cost-performance ratio.

CHEMICAL RESISTANCE

Floors dressed using **DECOR SYSTEM 70** are resistant to:

- diluted mineral acids, such as: hydrochloric acid, nitric acid, phosphoric acid and sulphuric acid, and limited resistance to organic acids;
- alkalis, including sodium hydroxide at a concentration of 50%, and detergents normally used for cleaning floors up to a concentration of 20-30%, as long as they do not contain abrasive granules;
- sugars, even in frequent contact with the floor.

COLOURS AVAILABLE

DECOR SYSTEM 70 may be coloured using **MAPECOLOR PASTE**, available in 19 different colours.

YIELD

The consumption rates indicated below are for cycles applied at a temperature of between +15°C and +25°C on a smooth, compact concrete surface with a quartz finish, grinded with a diamond disk or light shot-blasting.

Rougher surfaces, or lower application temperatures, will lead to an increase in consumption and longer hardening times. The consumption of **PRIMER SN** in particular may vary according to the type and depth of the preparation cycle carried out on the substrate.

DECOR SYSTEM 70	average thickness 2 mm
<i>1° layer:</i> PRIMER SN (A+B) Sprinkled on fresh surface	0.7 kg/m ²
0.5 QUARTZ	1 kg/m ²
<i>2° layer:</i> MAPEFLOOR DECOR 700 (neutral) (A+B + MAPECOLOR PASTE)	2 kg/m ²
<i>finish:</i> MAPEFLOOR FINISH 52 W (A+B)	0.1 kg/m ²
<i>or:</i> MAPEFLOOR FINISH 50 (A+B)	0.1 kg/m ²

N.B. If the **MAPEFLOOR DECOR 700** to be used is already coloured, **MAPECOLOR PASTE** must not be included.



PREPARATION OF THE SURFACE

1. Characteristics of the substrate

Before applying the **DECOR SYSTEM 70** cycle, the substrate on which it is to be applied must be carefully analysed. To obtain a good result, the following must be checked:

- That the roughness of the substrate is no more than 0.5 mm.
- That there are no materials which could potentially impede the bond of the successive coating, such as:
 - cement laitance;
 - dust or detached or loose portions;
 - protective wax, curing products or paraffin and efflorescence;
 - oil stains or layers of dirty resin;
 - traces of paint or chemical products.
- Any other kind of pollutant which may compromise the bond of the coating layer must be removed before carrying out installation. If the substrate is polluted by such elements, it **MUST** be prepared by carrying out a special preparation cycle. Contact the Technical Assistance Department for advice on the most suitable preparation cycle.
- That the pull off of the substrate must be more than 1.5 N/mm².
- That the level of humidity in the substrate must be no higher than 4%, and an adequate vapour barrier must be installed. If these conditions are not checked, contact the Technical Assistance Department.

If all the above conditions are respected, **DECOR SYSTEM 70** may be applied on concrete industrial floors, conventional or polymer-modified cementitious screeds, controlled-shrinkage screeds such as those made using **MAPECEM** or **TOPCEM** and old cement terrazzo surfaces and ceramic tiles floors if prepared correctly.

2. Preparation of the substrate

It is very important that the surface is prepared correctly to guarantee correct installation and the best performance of the **DECOR SYSTEM 70** epoxy cycle.

The most suitable method to prepare the surface is by shot-blasting or as an alternative, by grinding with a diamond disk. All dust must then be removed with a vacuum cleaner. Do not use chemical preparation methods, such as acid rinsing, or aggressive percussion tools, otherwise the substrate may be damaged. Any defects present, such as holes, pitting, cracking, etc. must be repaired beforehand using either **EPORIP** or **PRIMER SN**, according to the width and depth of the defects and cracks.

If the substrate needs to be consolidated, use **PRIMER MF** or **PRIMER EP** (choose the most suitable product according to the porosity, which will also have an effect on the consumption rate). If deep hollows or highly deteriorated areas are present on the substrate, repair these areas using **MAPEFLOOR EP19** three-component epoxy mortar or with products from the **MAPEGROUT** range.

Highly deteriorated joints must be repaired using the same products.

If any of the above guidelines are not strictly adhered to, the quality of the final work may be poor.

3. Checks to carry out before application

Make sure that all the checks in item 1 "Characteristics of the substrate" have been carried out, and that all the operations indicated in item 2 "Preparation of the substrate" have been carried out correctly.

The air temperature must be higher than +8°C (the ideal application temperature is between +15°C and +25°C) and the temperature of the substrate must be at least +3°C higher than the dew-point temperature.

4. Preparation and application of the products

Carefully follow the instructions for preparation according to the Technical Data Sheet for each single product used to form the complete cycle. **PRIMER SN** and **MAPEFLOOR DECOR 700**.

TECHNICAL DATA (after 7 days at +23°C)

Bond strength (DIN ISO 4624) N/mm ²	> 1.5
Abrasion resistance (TABER CS 17) mg	50
Thermal expansion coefficient (DIN 50014) °k	86x10 ⁻⁶
Compressive strength (DIN EN 196) N/mm ²	85
Flexural strength (DIN 1048) N/mm ²	35
Dynamic modulus of elasticity (DIN 1048) N/mm ²	15000
Resistance to temperatures (open air) °C	-20/+60
Finish	shiny/opaque

TROWEL finish coating 1.5-3 mm

• Primer (**PRIMER SN**)

Pour component B (4 kg) into component A (16 kg), add the **MAPECOLOR PASTE** and mix with a low-speed drill with a spiral mixing attachment to form a smooth, homogenous mix. While mixing, add 4 kg of **0.5 QUARTZ** to the blend prepared as described above, and continue mixing for a few minutes to form a smooth, homogeneous paste. Pour the mix as prepared according to the indications above onto the floor to be covered, and spread it out evenly and uniformly using a smooth trowel or a smooth rake. While the product is still fresh, spread on a layer of **0.5 QUARTZ** (approximately 1.5 kg/m²).

If the surface is still porous, is not compact or if it contains pinholes due to its high absorbency after the first coat of primer, a second smoothing layer of PRIMER SN must be applied as described above until all porosity has been completely eliminated. If all porosity is not correctly sealed, surface defects may appear on the finishing layer of MAPEFLOOR DECOR 700.

• Vacuuming off the dust

Once the **PRIMER SN** has hardened, remove excess sand with an industrial vacuum cleaner.

• First layer (**MAPEFLOOR DECOR 700**)

Pour component A (2 kg) into component B (8 kg), add **MAPECOLOR PASTE** (0.7 kg for each package of **MAPEFLOOR DECOR 700**) and mix with a low-speed drill with a spiral mixing attachment to form a smooth, homogenous mix. Slowly add from 2 to 20% of water to the blend while mixing until the consistency required is obtained. When a creamy, workable mix has been formed, apply it on the floor with a trowel performing the required decorations.

Once the first layer has hardened, and within a maximum of 24 hours, carefully sand the surface with a sander with a No. 100 or 120 abrasive disk.

• Second layer (**MAPEFLOOR DECOR 700**)

Pour component A (2 kg) into component B (8 kg), add **MAPECOLOR PASTE** in a contrasting colour to the colour of the first layer and according to the final colour required (0.7 kg for each package of **MAPEFLOOR DECOR 700**) and mix with a low-speed drill with a spiral mixing attachment to form a smooth, homogenous paste. Slowly add from 2 to 10% of water to the blend while mixing until the consistency required is obtained. When a creamy, workable mix has been formed, apply it on the floor with a trowel

performing the required decorations.

Once the first layer has hardened, and within a maximum of 24 hours, carefully sand the surface with a sander with a No. 100 or 120 abrasive disk until the required pattern is obtained.

• Finishing layer (**MAPEFLOOR FINISH 52 W**)

Pour component B (0.7 kg) into component A (4.7 kg) and mix with a low-speed drill with a spiral mixing attachment to form a smooth, homogeneous paste. Apply the product in a uniform, homogeneous layer using a smooth-haired roller or alternatively.

• Finishing layer (**MAPEFLOOR FINISH 50**)

Pour the content of component B (0.16 kg) into the container of component A (4.84 kg). Close the container and mix the components together by shaking for approximately one minute. Apply the product in a uniform, homogenous layer using a smooth-haired roller.

N.B.: a non-slip finish may be created by adding 5-10% in weight of **MAPEFLOOR FILLER** to the **MAPEFLOOR FINISH 50**.

5. Hardening and step-on times

At +25°C, **DECOR SYSTEM 70** finish may be stepped on after 16 hours, while fork-lifts and trolleys may be used 24 hours after applying the final layer of the coating. Lower temperatures lead to longer hardening and step-on times.

CLEANING AND MAINTENANCE

Regular cleaning and maintenance operations increase the life of the treated floor, improves its aesthetic aspect and reduces its capacity to collect dirt. Floors created using **DECOR SYSTEM 70** are generally easy to wash with neutral detergents, or alkali detergents diluted at a concentration of from 5 to 10% in water. The **MAPEFLOOR MAINTENANCE KIT** is now available for everyday use, and includes **MAPELUX LUCIDA** metallic wax, **MAPEFLOOR WAX REMOVER** and **MAPEFLOOR CLEANER ED**.

If **DECOR SYSTEM 70** is applied in civil environments, we recommend waxing the floor with special metallic wax: **MAPELUX LUCIDA** or **MAPELUX OPACA**. Our Technical Assistance Department is available for any information required.

NOTES

Recommendations regarding safe handling of the products are contained in the Safety Data Sheet for each single component in the cycle. However, the use of protective clothing, gloves and goggles is recommended when mixing and applying the products.

If the cycle is applied on different surfaces to those mentioned above, or in climatic conditions and/or final uses not mentioned above, please contact the Technical Assistance Department at MAPEI S.p.A. at resinflooring@mapei.it.