



Mapecomfort PU 460 N

Two-component elastic, coloured, aromatic, self-levelling polyurethane resin used to create Mapecomfort System AR and Mapecomfort System AR/X floor coating systems



DESCRIPTION

Mapecomfort PU 460 N is a two-component, aromatic polyurethane resin with 100% solids content used to create flexible, self-levelling resin coatings for floors. **Mapecomfort PU 460 N** may also be used in combination **Mapecomfort** rubber mat.

TECHNICAL CHARACTERISTICS

Mapecomfort PU 460 N is a two-component, coloured aromatic polyurethane resin with 100% solids content developed in the MAPEI R&D laboratories. Floors coated with **Mapecomfort PU 460 N** are elastic and resistant to foot traffic and mild chemicals. When used in combination with **Mapecomfort** rubber mat, floors are characterised by their high level of comfort underfoot and good soundproofing properties to reduce the transmission of noise.

WHERE TO USE

Floors coated with **Mapecomfort PU 460 N** are particularly recommended for use in civil and public service environments such as:

- schools, nurseries, offices, public offices, etc.;
- hospitals and care homes;
- libraries, museums, showrooms, etc.;
- apartments;
- bars and shops in general.

RECOMMENDATIONS

- Do not apply **Mapecomfort PU 460 N** on damp substrates or broadcast the surface with wet or moist aggregates.
- Do not apply **Mapecomfort PU 460 N** on substrates with capillary rising damp (contact Mapei Technical Services Department).
- Do not dilute **Mapecomfort PU 460 N** with solvent or water.
- Do not apply **Mapecomfort PU 460 N** on dusty or crumbling substrates.
- Do not apply **Mapecomfort PU 460 N** on substrates with oil or grease stains or stains in general.
- Do not apply **Mapecomfort PU 460 N** on substrates that have not been treated with **Primer SN** (for **Mapecomfort System AR**) or over bonded and smoothed **Mapecomfort** rubber mat (for **Mapecomfort System AR/X**) or that have not been prepared as specified.
- Do not mix partial quantities of the components to avoid mixing errors; the product may not harden correctly.
- Do not expose the mixed product to sources of heat.
- Coatings made from **Mapecomfort PU 460 N** may change colour or fade if exposed to sunlight but this has no effect on its performance characteristics.
- The coating may also change colour if it comes into contact with aggressive chemicals. A change in colour, however, does not mean that it has been damaged by the chemical.
- If rooms where the product is being applied need to be warmed up do not use heaters* that burn hydrocarbons, otherwise the carbon dioxide and water vapour given



Mapecomfort PU 460 N



Mixing of component



Application of Mapecomfort PU 460 N



Mapecomfort with Mapecomfort Pore Filler

off into the air will affect the shine on the finish and ruin its appearance. Use electric heaters only.

- Remove aggressive chemicals as soon as possible after they come into contact with **Mapecomfort PU 460 N**.
- Use suitable specific cleaning equipment and detergent to clean the coating, depending on the type of dirt or stain to be removed.
- Protect the product from water for at least 24 hours after application.
- Do not apply the product directly on substrates with moisture content higher than 4% and/or with capillary rising damp (check by testing it with a sheet of polythene).
- The temperature of the substrate must be at least 3 °C above the dew-point temperature.
- Do not apply the product in areas with relative air humidity more than 70 %.

COLOURS

Mapecomfort PU 460 N is available in various colours. Please contact Head Office for a full list of the colours available. **Mapecomfort PU 460 N** must be protected with at least two coats of **Mapecomfort Finish 58 W** coloured, UV-resistant polyurethane finish. We recommend choosing a colour for the finish as similar as possible to the colour used for the **Mapecomfort PU 460 N** self-levelling resin.

APPLICATION PROCEDURE

Substrate preparation

The surface of concrete floors must be dry, clean and sound and have no crumbling or detached areas. The compressive strength of the concrete used for the substrate must be at least 25 N/mm² and its tensile strength must be at least 1.5 N/mm² and must always be suitable for its final use and the types of load to which the floor will be subjected. The level of moisture in the substrate must be a maximum of 4% and there must be no capillary rising damp (check by testing it with a sheet of polythene).

The surface of the floor must be prepared with suitable equipment (e.g. shot-blasting or grinding with a diamond disk) to remove all traces of dirt, cement laitance and crumbling or detached areas and to make the surface slightly rough and absorbent. Before applying any material, remove all dust from the surface with a vacuum cleaner.

Any cracks must be repaired by filling them with **Eporip. Mapecomfort BI-IMP** while any deteriorated areas in the concrete must be repaired with **Mapecomfort EP19, Mapecomfort L-Mörtel** or a cementitious mortar from the **Confix or Mapecomfort** line.

Before applying **Mapecomfort PU 460 N**, remove all traces of dust from the surface with a vacuum cleaner.

Apply **Mapecomfort PU 460 N** on cementitious substrates after applying a coat of **Primer SN** (for **Mapecomfort Comfort System AR**) or over **Mapecomfort** rubber mat bonded and smoothed over with **Mapecomfort Pore Filler** (for **Mapecomfort Comfort System AR/X**).

Application of Primer SN

After preparing the substrate as specified, apply an even coat of **Primer SN** mixed with **Sand 0.1-0.4 mm** with a flat trowel or smooth rake. Immediately after applying **Primer SN**, broadcast the surface with **Sand 0.1-0.4 mm** or **Sand 0.4-0.8 mm** while it is still wet to ensure the next coat of resin adheres perfectly.

Bonding Mapecomfort (for Mapecomfort Comfort System AR/X)

Bond the **Mapecomfort** rubber mat in place with **Mapecomfort Pore Filler**. Once the mat has been bonded to the substrate, skim over the surface with the same product to seal all the pores.

Preparation of the product

The two components which make up **Mapecomfort PU 460 N** must be mixed together just before application. Mix component A thoroughly with an electric mixer at low-speed (300-400 revs/min) and add the contents of component B. Mix components A and B with a mixer at low-speed (300-400 revs/min) to prevent entraining air into the product. Mix for at least two minutes until they are completely blended.

Pour the mix into a clean container and briefly mix again.

Do not mix the product for too long to avoid entraining too much air into the mix.

Apply the mix within the pot life indicated in the data table (refers to a temperature of +20° C). Higher surrounding temperatures will reduce the pot life of the mix, while lower temperatures will increase its pot life.

Application of the product

Pour **Mapecomfort PU 460 N** over the **Primer SN** or **Mapecomfort** skimmed with **Mapecomfort Pore Filler**. Make sure there are no pores left in the surface otherwise they could form pin-holes in the surface of the coating during the hardening phase. If there are still pores visible smooth over the surface again with **Primer SN** or **Mapecomfort Pore Filler**.

Spread the **Mapecomfort PU 460 N** evenly using a notched spreader to form a layer at least 2 mm thick; a spreader with triangular notches is recommended. Immediately after applying the product, go over the surface several times in different directions with a bubble-breaker to release any air entrained in the product during mixing.

Once the **Mapecomfort PU 460 N** has hardened, within 48 hours at +23 °C apply 2 coats of **Mapecomfort Finish 58 W** coloured, matt, UV-resistant protective polyurethane finish by *airless* spray or with a roller finishing in a one direction only.

If more than 48 hours (at +23 °C) go by after applying **Mapecomfort PU 460 N**, roughen the surface slightly with sandpaper or emery cloth before applying the finishing coat. Make sure all traces of dust are removed from the surface with a vacuum cleaner before applying the finish.

We recommend choosing a colour for the

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	component A	component B
Colour:	colored	brown
Consistency:	fluid paste	clear liquid
Density (g/cm³):	1.40	1.20
Brookfield viscosity at +23°C (mPa-s):	2,500 (# 4 - 20 rpm)	300 (# 1 - 20 rpm)

APPLICATION DATA (at +23°C and 50% R.H.)

Mixing ratio:	component A : component B = 80 : 20	
Viscosity of mix at +23°C (mPa-s):	1,600 (# 5 - 50 rpm)	
Colour of mix:	RAL Colours	
Consistency of mix:	self-levelling fluid paste	
Density of mix (kg/m³):	1,360	
Workability time at +20°C:	approx. 30 minutes	
Application temperature:	from +10 °C to +30 °C (refers to the surroundings, material and substrate)	
Waiting time between coats at +23°C and 50% R.H.:		
– on Primer SN lightly broadcast with quartz sand:	min. 12 hours	max. 24 hours
– on Mape Comfort smoothed over with Mapefloor Pore Filler:	min. 8 hours	max. 24 hours
Hardening time at +23°C and 50% R.H.:		
– dust dry:	4 hours	
– set to foot traffic:	24 hours	
– complete hardening:	7 days	

The times above are for indication purposes only and are affected by actual site conditions (e.g. temperature of the surroundings and substrate, relative humidity of the surrounding air, etc.)

FINAL PERFORMANCE

Adhesion (EN 13892-8) (N/mm²):	> 3.5 (failure of concrete)
Elongation at failure (DIN 53504) (%):	approx. 150
Tear strength (DIN 53515) (N/mm):	18
Tensile strength (DIN 53504) (N/mm²):	7
Shore A hardness (DIN 53505):	75
Reaction to fire (EN 13501-1):	B _{FL} -S1



Application of Mapefloor Finish 58 W

finish similar to the colour used for the base layer of **Mapefloor PU 460 N**.

CONSUMPTION

Mapefloor PU 460 N: approx. 2.75 kg/m² to form a 2 mm thick layer.

Cleaning tools

Clean tools used to prepare and apply **Mapefloor PU 460 N** with ethanol or thinners immediately after use. Once hardened, the product may only be removed using mechanical means.

PACKAGING

20 kg kits (A +B):
– component A = 16 kg;
– component B = 4 kg.

STORAGE

Mapefloor PU 460 N may be stored for up to 24 months component A and 6 months for comp. B when stored in a dry area in its original packaging at a temperature of between +5 °C and +35 °C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website www.mapei.no

PRODUCT FOR PROFESSIONAL USE.

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.no

LEGAL NOTICE

The contents of this Technical Data Sheet (“TDS”) may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.no

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.no