

Two-component self-levelling elastic coloured polyurethane resin for indoor and outdoor playing surfaces



DESCRIPTION

Coloured self-levelling polyurethane resin for both indoor and outdoor flexible sport and recreational surfaces over either bituminous conglomerate, cementitious substrates or granular rubber mat such as **Mapecomfort PU** or **Mapecomfort R**.

WHERE TO USE

- Creation of multi-layer systems such as **PU Multisport Comfort** or **PU Multisport Professional**, after applying **PU Sealer 750**.
- Repairing and restoring the flatness of surfaces.
- Coating of old playing surfaces.
- Creating durable sports surfaces with a high level of comfort during use.
- Creation of school or recreational surfaces.
- Elastic surface finishing coat for outdoor application in combination with coloured rubber granules **Maperubber EPDM 15**.
- Creation of both indoor and outdoor playing surfaces.

TECHNICAL CHARACTERISTICS

PU 700 SL is a coloured, self-levelling polyurethane resin which, thanks to its particularly fluid consistency, has good workability and is easy to spread and form a levelling layer on the surface it is applied on.

When **PU 700 SL** is used to restore existing sports surfaces (such as old polyurethane playing surfaces), the special self-levelling properties of the formulation enable the flatness of substrates to be restored.

The mechanical properties of **PU 700 SL** help improve the seamless elasticity of multi-layered systems, such as **PU Multisport Comfort**, **PU Multisport Professional** and **PU Professional**, created to provide a high level of comfort for athletes on surfaces subject to intensive use. When **PU 700 SL** is applied after **PU Sealer 750** to build up the overall thickness of the system, thanks to its special composition, it provides better protection thanks to the thickness applied and increases the overall durability of the playing surface.

Thanks to the biomechanical properties of the system and the elasticity of **PU 700 SL**, athletes benefit by experiencing a higher level of comfort during use.

RECOMMENDATIONS

- Do not dilute **PU 700 SL** with solvent or water.
- Do not apply **PU 700 SL** directly on dusty, crumbling or weak surfaces.
- Do not apply **PU 700 SL** on substrates with oil or grease stains or with stains in general.
- Do not apply **PU 700 SL** directly on wet substrates or with water in counter-pressure. In such cases the surface needs to be treated with a suitable product and only after treating the surface should the possibility of coating with **PU 700 SL** be assessed.
- The product cannot be applied directly on cementitious substrates with a residual moisture content higher than 4% and with capillary rising damp.

- 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.
- Protect the applied product from water for at least 24 hours after application.
- **PU 700 SL** may only be applied over other finishing products after carefully checking the state of the old layer and after carrying out preliminary tests to verify their compatibility and that there is good adhesion between the old finish and **PU 700 SL**.
- Do not apply **PU 700 SL** directly on concrete or cementitious surfaces in general. Application on this type of surfaces is possible only after applying **Mapecoat TNS Primer EPW**, according to the procedure illustrated in the relative Technical Data Sheet.
- Do not apply **PU 700 SL** directly on bituminous conglomerate floors. Application on this type of surfaces is possible only after applying **PU Sealer 750**.

APPLICATION PROCEDURE

Preparation of the substrate

Concrete surfaces to be treated with this product must be dry, clean, free of loose material and as flat as possible. The substrate must be strong enough for the loads the surface will have to withstand when in use. The moisture content must not be higher than 4% and there must be no capillary rising damp. Make sure there is a suitable vapour barrier underneath concrete substrates. If this is not possible, treat the surface with a suitable product and then, after treating the surface, check to make sure the surface is suitable for **PU 700 SL**, otherwise it may detach and/or blisters may form. Repair cracks by filling them with **Eporip** and repair any damaged areas in the concrete with a cementitious mortar from the **Mapegrout** or **Planitop** range.

The surface of the floor must be prepared with suitable power tools to remove all traces of dirt, cement laitance and crumbling or detached portions and to make the surface slightly rough and absorbent. Before applying **PU 700 SL** remove all traces of dust from the surface with a vacuum cleaner.

Bituminous conglomerate surfaces to be treated with this product must be clean, free of loose material and as flat as possible, or with a maximum slope of 1%. After preparing bituminous conglomerate substrates, wait a suitable period of time (around 15 days) to allow the bitumen to oxidise correctly. Repair defects such as holes, pitting, cracking with **Ultrabond Turf 2 Stars Pro**. In the case of particularly deteriorated or dirty areas of asphalt, it may be necessary to remove these areas and then repair them with **Mape-Asphalt Repair 0/8** cold-applied reactive asphalt. Before applying **PU 700 SL** on bituminous conglomerate, treat the surface with **PU Sealer 750** filler and primer so that successive layers have a more constant thickness and rate of consumption.

To apply **PU 700 SL** on granular rubber mat, such as **Mapecomfort R** or **Mapecomfort PU**, apply a first coat of **PU Sealer 750**, making sure it saturates the surface uniformly and seamlessly.

Preparation of the product

PU 700 SL is a two-component product. The two components must be mixed together just before application. Mix component A thoroughly and add the contents of component B. Mix again for at least 2 minutes with an electric mixer fitted with a mixing attachment at low speed to avoid entraining air into the product until they are completely blended. Pour the mix into a clean container and briefly mix again. Do not mix the product for too long or too strongly to avoid entraining too much air into the mix. Apply the mix within the pot life indicated in the table (approx. 30 min 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 **PU 700 SL** directly onto the bituminous conglomerate substrate or granular rubber mat such as **Mapecomfort PU** or **Mapecomfort R** after applying **PU Sealer 750** and spread it out evenly with a metal notched trowel with notches according to the thickness of coating required. Make sure there are no holes visible in the surface; they may cause pinhole defects to appear in the surface of the coating during the hardening phase. If bubbles are still visible on the surface, apply a new skim coat of **PU Sealer 750**. The cycle comprises the application of 1 or 2 coats of **PU 700 SL**. Wait 24 hours between each coat in normal temperature and humidity conditions (+23°C and 50% R.H.). To ensure **PU 700 SL** is applied uniformly, go over the surface with a spiked roller in a criss-cross pattern while it is being applied to get rid of any air entrained in the product during mixing. This operation is particularly recommended when applying the **PU Multisport Comfort** system. Once **PU 700 SL** has hardened, apply the next layer of **PU 200 Finish** within 48 hours. If this time limit is exceeded, sandblast the surface and slightly remove all traces of dust with a vacuum cleaner. When installing a **PU Professional** or **PU Multisport Professional** system, **Maperubber EPDM 15** must be applied over **PU 700 SL** while still fresh.

PRECAUTIONS TO BE TAKEN DURING PREPARATION AND APPLICATION

- Do not dilute **PU 700 SL** with solvent or water.
- Do not apply **PU 700 SL** if it is about to rain.
- Do not apply **PU 700 SL** on damp or wet surfaces; it may not adhere correctly.
- Do not apply **PU 700 SL** on dusty, crumbling or weak surfaces.
- Apply **PU 700 SL** at a temperature range between +15°C and +30°C.
- During hardening of **PU 700 SL**, the temperature must not drop below +15°C.

CLEANING

Tools used to mix and apply the product may be cleaned with thinners for polyurethane products before it hardens. Once hardened, it may be removed mechanically from tools.

CONSUMPTION

The consumption rate depends on the porosity of the substrate, temperature and the tools used for application. The figures indicated are for application at +15°C to +25°C; lower temperatures may affect the consumption rate and setting time of the material.

Surface treated with **PU Sealer 750**: consumption: approx. 1.3 kg/m² per mm of thickness.

PACKAGING

PU 700 SL is supplied in 21.5 kg drums:

- component A 16.5 kg metal drums;
- component B 5 kg plastic pails.

STORAGE

PU 700 SL must be stored in its original packaging, in a dry place away from sources of heat at a temperature of +5°C to +35°C, which must be controlled also during transport. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
Colour:	component A	component B
white or various colours using the ColorMap® automatic colouring system	Opalescent	
Consistency:	fluid paste	liquid
Density at +23°C (g/cm ³):	approx.1.25	approx.1.20
Storage temperature (°C):	between +5°C and +35°C. Protect from frost	
Stability of component (from date of production):	12 months	
APPLICATION DATA (at +23°C and 50% R.H.)		
Mixing ratio by weight:	A : B = 77 : 23	
Consistency of mix:	self-levelling fluid paste	
Density of mix (kg/m ³):	approx. 1.27	

Mixing time:	2 minutes at 300-400 rev/min
Workability time at +20°C:	approx. 30 min.
Hardening time at +23°C and 50% R.H.: – dust dry: – set to foot traffic: – complete hardening time:	8 hours 24 hours 7 days
Waiting time between coats at +23°C and 50% R.H.: – over Mapecoat TNS Primer EPW lightly broadcast with Quartz 0.5: – over Mapecomfort PU skimmed with PU Sealer 750:	min. 12 hours max. 24 hours min. 8 hours max. 24 hour
Application temperature (°C):	+15°C to +30°C (surrounding temperature)
FINAL PERFORMANCE OF PRODUCT	
Elongation at failure (DIN 53504) (%):	approx. 153
Tear strength (DIN 53515) (N/mm)	approx. 12.9
Tensile strength (DIN 53504) (N/mm ²):	approx. 5.4
Shore A hardness (DIN 53505):	approx. 65

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

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