PU MULTISPORT PROFESSIONAL

Two-component, polyurethane, resin-based multilayer system for outdoor multisport fields

BENEFITS AND FEATURES

- Durability
- Wide variety of colours available
- Resistance to weathering and UV rays
- Comfortable in use
- Direct application on existing coatings or on new concrete or asphalt substrates
- Solvent-free

PRODUCTS TO USE

- Polyurethane filler: **PU SEALER 750**
- Self-levelling polyurethane product: **PU 700 SL**
- Finishing layer: **MAPERUBBER EPDM 15**
- Polyurethane paint for markings: **PU 200 FINISH**

CHARACTERISTICS

PU MULTISPORT PROFESSIONAL is a system with high resistance to wear, UV rays and adverse weather conditions.
PU MULTISPORT PROFESSIONAL can be applied on both existing flooring and on concrete and asphalt surfaces.
PU MULTISPORT PROFESSIONAL allows the creation of flooring with high performance characteristics for the user.

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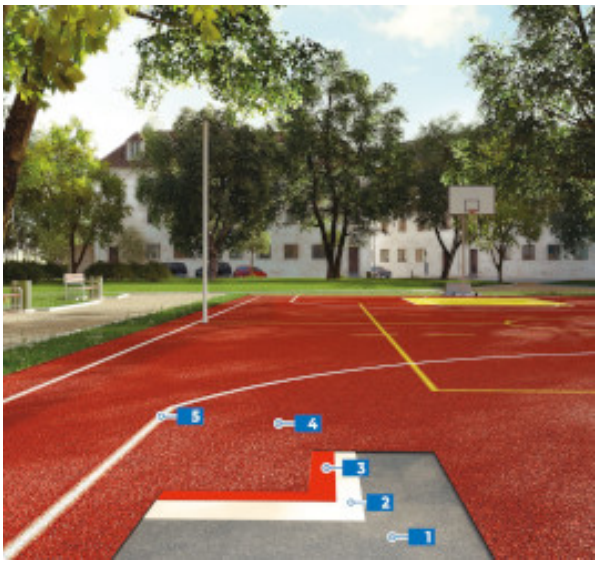
FINAL USE

- Multi-purpose areas
- Volleyball
- Basketball
- Handball
- Five-a-side soccer



1	Asphalt
2	Polyurethane filler **PU SEALER 750**
3	Polyurethane self-levelling product **PU 700 SL**
4	Finishing **MAPERUBBER EPDM 15**
5	Polyurethane paint for markings **PU 200 FINISH**

SURFACE PREPARATION

Characteristics of the substrate

Before proceeding with the application of the **PU MULTISPORT PROFESSIONAL** cycle, the substrate on which it is to be applied must be carefully analysed.
For a successful application of the product, the substrate must be strong enough for the loads the surface will have to withstand when in use.

Minimum requirements for concrete substrates:

- suitably cured (minimum 28 days)
- free from rising damp (max. residual moisture 3%)
- dry
- flat
- free from detaching or loose parts

Minimum requirements for bituminous mats:

- suitably cured (minimum 15–20 days)
- dry
- flat
- free from detaching or loose parts

Notes: The absence of a suitable vapour barrier (concrete) could lead to detachment and/or blisters.

The mechanical strength of the surface must comply with its intended use and with the respective Sports Associations and Federations guidelines, if present.

Preparation of the substrate

Concrete substrates

The surface of the floor to be treated must be prepared with a suitable mechanical process (e.g. shot-blasting or grinding with a diamond disc) to remove all traces of dirt, cement laitance and crumbling or detached portions, and to make the surface slightly rough and absorbent. Before applying the products, thoroughly remove all dust on the surface with a vacuum cleaner.
As an alternative to the mechanical treatment described above, in case of smooth and low-absorbency surfaces, rinse with a solution of clean water and 5 - 10% **ULTRACARE HD CLEANER** (or equivalent products from **ULTRACARE** range). Spread the solution on the whole surface using a brush or a single disc buffing machine and then rinse again with plenty of clean running water (for further information please refer to **ULTRACARE HD CLEANER** Technical Data Sheet).
The maximum residual moisture content of the substrate must be 3% (if it is between 3-6% use **Triblock P**) and there must be a suitable vapour barrier. If these conditions are not met, the surface must be treated with suitable products. Once treated, make sure the surface is suitable for the application of **PU SEALER 750** or **PU 700 SL**, otherwise the coating may detach and/or blisters may form. If required, contact Mapei Technical Services for advice on the most suitable preparation method.
Make sure that the substrate is as flat as possible, and that the tear strength is higher than 1.5 N/mm^2. If required, contact Mapei Technical Services for advice on the most suitable preparation method.
Repair any cracks in the surface using epoxy resins such as **EPORIP**, **EPORIP TURBO**, **EPOJET** or equivalent Mapei products. If necessary, repair damaged concrete areas with cementitious mortars from the **MAPEGROUT** or **PLANITOP** range or equivalent Mapei products.
Expansion joints must be sealed with **MAPEFOAM** and **MAPEFLEX PU 45 FT**, **MAPEFLEX PU 40** or equivalent Mapei products, and broadcasted with **QUARTZ 0.5** while the sealant is still fresh.

Bituminous substrates

Fill and repair any cracks using fillers for high thickness applications such as **MAPEFLEX EXPRESS 80/400**, **MAPEFLEX ASPHALT CRACK REPAIR**, **ULTRABOND TURF 2 STARS, ULTRABOND TURF 2 STARS PRO** or **ULTRABOND TURF PU 2K** (two-component quick-drying products).
In the presence of hollows up to 2 cm deep, the use of a balanced mix of the above-mentioned products (**ULTRABOND TURF**) and 15-20% by weight of dry silica sand **QUARTZ 0.9** is recommended. Broadcast with **QUARTZ 0.5** or **QUARTZ 0.9** on the surface while it is still fresh, making sure it is completely saturated.
Badly damaged and worn asphalt must be removed and replaced by applying **MAPE-ASPHALT REPAIR 0/8**.

Preliminary checks before application

Make sure that all the assessments from section “Characteristics of the substrate” have been carried out and that all the operations indicated in section "Preparation of the substrate” have been carried out correctly.
The surrounding temperature must be between +10°C and +35°C (the ideal application temperature is between +15°C and +25°C) and the temperature of the substrate must be at least 3°C above dew-point.

PREPARATION AND APPLICATION OF THE PRODUCTS

Carefully follow the preparation instructions contained in the Technical Data Sheets for each single product used to form the complete system:
Consumption rates below refer to the application of PU MULTISPORT PROFESSIONAL system on a flat concrete substrate. Rougher surfaces and application at lower temperatures could lead to an increase in consumption and longer hardening times.
In particular, consumption rates of the filler undercoats **MAPECOAT TNS WHITE BASE COAT**, or **MAPECOAT TNS WHITE BASE COAT HV** may vary depending on the absorbency level and roughness of the substrate.

Yield of materials

Filler:	**PU SEALER 75**	1 coat approx. 1-1.2 kg/m²
Self-levelling product:	**PU 700 SL**	1st coat approx. 2.6 kg/m² (final thickness 2 mm) 2nd coat approx. 1.3 kg/m² (final thickness 1 mm).
Finishing layer:	**MAPERUBBER EPDM 15**	1 coat approx. 2 kg/m² (actual consumption approx. 1.2 kg/m²)
Markings:	**PU 200 FINISH**	1 or 2 coats consumption to be verified according to the type of markings

CLEANING

Please refer to the Technical Data Sheets of the relevant products for information about the clean operations of the tools used during the application.

HARDENING AND STEP-ON TIMES

Once the system is completely applied, at +23°C and 50% R.H., the surface sets to foot traffic after 12 hours. Lower temperatures lead to longer hardening and step-on times.

TECHNICAL DATA (typical values)

	PU 700 SL		PU SEALER 750	
	Component A	Component B	Component A	Component B
Colour:	colour chart	brown	dark grey	brown

FINAL PERFORMANCE OF PRODUCT:		
	PU 700 SL	PU SEALER 750
Elongation at break DIN 53504 after 7 days at +23°C:	80	70
Breaking load DIN 53504 after 7 days at +23°C:	6.5	6.5
Density:	1.25g/cm^3	1.25 g/cm^3

Shore A hardness:	80	85

CLEANING AND MAINTENANCE

Regular cleaning and maintenance operations increase the flooring's service life, improve its aesthetic properties and reduce its tendency to collect dirt. For cleaning and maintenance operations please refer to the respective manuals.

NOTES

Information regarding safety equipment and handling of the products are contained in the Safety Data Sheets for each component of the cycle available on the website www.mapei.com. However, the use of protective clothing and equipment is recommended when mixing and applying the products.
If the cycle is applied on different surfaces from those mentioned above, or in climatic conditions and/or for final uses not mentioned above, please contact the Technical Services Department at MAPEI S.p.A.

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