

PU Multisport Comfort

HIGH-ELASTICITY MULTI-LAYERED SYSTEM MADE FROM TWO-COMPONENT POLYURETHANE RESIN IN COMBINATION WITH GRANULAR RUBBER MATTING FOR INDOOR PLAYING SURFACES

PRODUCTS USED for the system:

PU LINE, PU 200 FINISH, PU 700 SL, PU SEALER 750, MAPECOMFORT, ULTRABOND TURF 2 STAR

DESCRIPTION

PU MULTISPORT COMFORT

is a multi-layered two-component polyurethane resin system applied in combination with granular rubber matting and is used to create multi-purpose playing surfaces with high resistance to wear.

PU MULTISPORT COMFORT

may be applied over existing surfaces or on new cementitious or asphalt surfaces that need to be coated.

When **PU MULTISPORT COMFORT**

is applied on substrates it forms an elastic surface with excellent playing comfort and excellent performance characteristics, such as a regular bounce of the ball, quick, safe changes in running direction and an excellent compromise between balance and slide for players.

The elasticity of **PU MULTISPORT COMFORT** allows high-performance playing surfaces to be created which reduce the effect of impact trauma.

PU MULTISPORT COMFORT

playing surfaces also have a very attractive finish and may be renewed easily and rapidly.

PERFORMANCE AND ADVANTAGES

- Excellent playing comfort.
- Durable, characterised by high resistance to wear and abrasion from constant foot traffic.
- Resistant to outdoor conditions.
- Forms attractive, flat, seamless and highly functional surfaces.
- Quick application; reduces the time required to carry out work and the down time of playing surfaces.
- Wide range of colours available.
- Guarantees an excellent cost-performance ratio.

CHEMICAL RESISTANCE

Surfaces coated with **PU MULTISPORT COMFORT** are

resistant to:

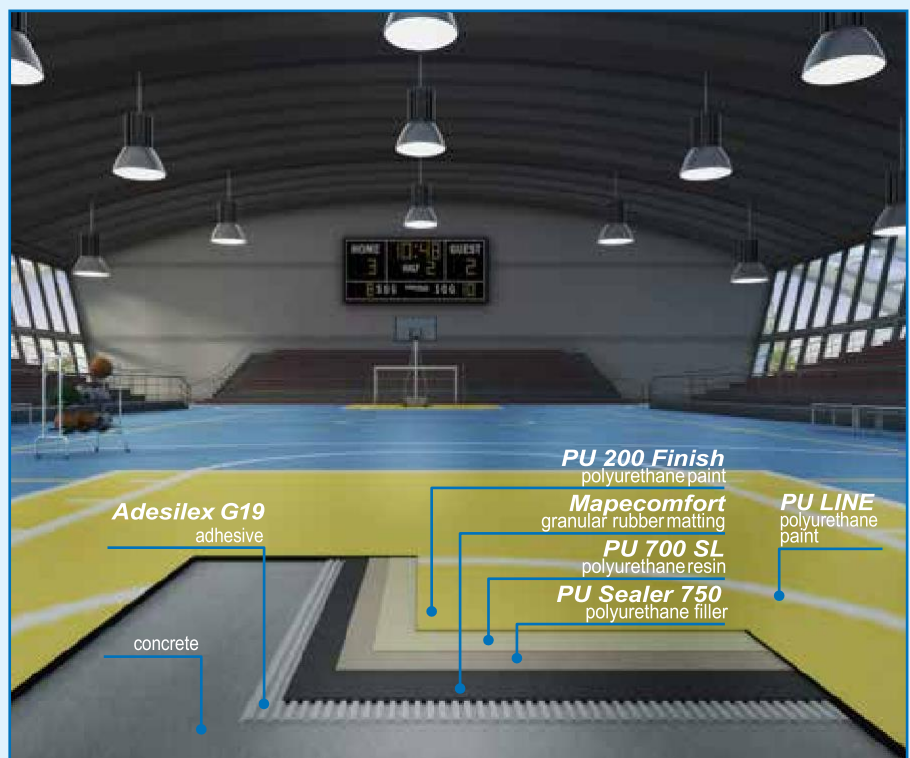
- diluted acids;
- alkalis, including 50% sodium hydroxide and detergents normally used for cleaning floors up to a concentration of 20-30%;
- mineral oils, diesel, petrol and kerosene.

COLOURS AVAILABLE

PU MULTISPORT COMFORT is available in colours from the standard colour chart and in personalised colours upon request.

YIELD

The consumption levels indicated below consider a cycle applied at a temperature of between +15°C and



+25°C on a flat, compact concrete surface. Rougher surfaces and lower temperatures lead to higher consumption rates and longer hardening times.

The consumption rate for **ULTRABOND TURF 2 STAR** adhesive in particular may vary according to the type of substrate and the depth reached during the preparation treatment.

PU MULTISPORT COMFORT

average 5 to 10 mm depending on the thickness of **MAPECOMFORT** used

Bonding:

ULTRABOND TURF 2 STAR 0.5-1.5 kg/m²

(depending on the roughness of the substrate)

To bond **MAPECOMFORT** granular rubber matting.

1° coat:

PU SEALER 750 0.5 kg/m²

Self-levelling layer:

PU 700 SL 1.3 kg/m² per mm of thickness

Finish:

PU 200 FINISH 0.2 kg/m²

SURFACE PREPARATION

1. Characteristics of the substrate

Before applying the **PU MULTISPORT COMFORT** cycle, the substrate on which it is to be applied must be carefully analysed. To get the best results the following must be checked:

- there must be no materials or debris on the substrate which could potentially impede adhesion of each layer such as:
 - cement laitance;
 - dust, detached or loose material;
 - protective wax, curing products, paraffin or efflorescence;

- oil stains or layers of dirty resin;
- traces of paint or chemical products.

Any other kind of material or substance that could affect adhesion of the coating must be removed before starting work. If there are any such materials or substances, it is **ESSENTIAL** that the substrate is prepared using a suitable preparation method. If required, contact Mapei Technical Services for advice on the most suitable method.

- The pull-off strength of the substrate must be more than 1.5 N/mm².
- The substrate must be as flat as possible, and in all cases with a maximum slope of 1.5%.
- The maximum moisture content of the substrate must be 4% 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 **ULTRABOND TURF 2 STAR**, otherwise the



coating may detach and/or blisters may form.

ULTRABOND TURF 2 STAR may only be applied over other types of acrylic resin-based finishing products after carefully checking that the old finish and **ULTRABOND TURF 2 STAR** are compatible.

2. Substrate preparation

It is very important that the surface is prepared correctly to guarantee correct installation and to get the best performance from the **PU MULTISPORT COMFORT** acrylic cycle.

The most suitable method for preparing the surface is 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, to prevent damaging the substrate. Any defects present, such as holes, pitting, cracking, etc., must be repaired beforehand with **EPORIP**, **MAPEGROUT** or **PLANITOP SMOOTH&REPAIR**, depending on the width and depth of the defects and cracks.

3. Preliminary checks before application

Make sure that all the checks from section 1 "Characteristics of the substrate" have been carried out and that all the operations indicated in section 2 "Substrate preparation" have been carried out correctly.

The surrounding temperature must be between +15°C and +30°C and the temperature of the substrate must be at least +3°C above the dew-point temperature.

4. Preparation and application of the products

Carefully follow the preparation instructions contained in the Technical Data Sheet for each single product used to form the complete system: **ULTRABOND TURF 2 STAR**, **MAPECOMFORT**, **PU SEALER 750**, **PU 700 SL**, **PU 200 FINISH** and **PU LINE**.

Coating

• Base coats (**ULTRABOND TURF 2 STAR** and **MAPECOMFORT**)

We recommend rolling out the rolls of **MAPECOMFORT** so they may acclimatise sufficiently before they are laid. Apply **MAPECOMFORT** on the **ULTRABOND TURF 2 STAR** adhesive while it is still fresh, within an hour at +23°C, and then carefully massage the surface from the centre working outwards to make sure there is full contact and to ensure that all air bubbles are removed. If the mat is not perfectly flat, put weights (such as bags of sand) on the surface of the uneven areas, and on the joints

and ends of the mat, until the **ULTRABOND TURF 2 STAR** has hardened (12-24 hours). For further information please refer to the **ULTRABOND TURF 2 STAR** Technical Data Sheet.

• Base coats (**PU SEALER 750**)

PU SEALER 750 is a two-component product. The two components which make up **PU SEALER 750** must be mixed together just before it is applied. Mix component A thoroughly and add the contents of component B. Mix again for at least 2 minutes with an electric mixer with a mixing attachment at low-speed to prevent entraining air into the product until they are thoroughly blended. After mixing the two components of **PU SEALER 750** apply and spread it over the surface within 5 minutes. Pour **PU SEALER 750** directly onto the **MAPECOMFORT** and spread it out evenly with a rubber or metal spreader.

This cycle requires one coat at a consumption rate 0.5 kg/m².

• Sanding and removing the dust with a vacuum cleaner

When the **PU SEALER 750** has hardened, sand the surface to remove any uneven areas and remove all dust with an industrial vacuum cleaner.

• Surface protection (**PU SEALER 750**)

As soon as the surface has been treated with **PU SEALER 750**, protect it from rain, strong currents of air, high temperatures, falling leaves or other such objects which could damage the surface.

• Cleaning

Remove **PU SEALER 750** from tools before it hardens with polyurethane thinners; once hardened it may only be removed from tools using mechanical means.

• Base coats (**PU 700 SL**)

PU 700 SL is a two-component product. The two components which make up **PU 700 SL** must be mixed together just before it is applied. Mix component A thoroughly and add the contents of component B. Mix again for at least 2 minutes with an electric mixer with a mixing attachment at low-speed to prevent entraining air into the product until they are thoroughly blended. After mixing together the two components of **PU 700 SL** it must be applied and spread over the surface within 5 minutes. Pour **PU 700 SL** directly over the **PU SEALER 750** and spread it out evenly with a rubber or

metal notched spreader.

This cycle requires one to two coats at a total consumption rate 2.0-3.0 kg/m².

• Surface protection (**PU 700 SL**)

As soon as the surface has been treated with **PU 700 SL**, protect it from rain, strong currents of air, high temperatures, falling leaves or other such objects which could damage the surface.

• Cleaning

Remove **PU 700 SL** from tools before it hardens with polyurethane thinners; once hardened it may only be removed from tools using mechanical means.

• Finish (**PU 200 FINISH**)

PU 200 FINISH is a two-component product. The two components which make up **PU 200 FINISH** must be mixed together just before it is applied. Mix component A thoroughly and add the contents of component B. Mix again for at least 2 minutes with an electric mixer with a mixing attachment at low-speed to prevent entraining air into the product until they are thoroughly blended. Once the two components of **PU 200 FINISH** have been mixed together dilute it with 15% to 30% of water and mix again using the same procedure as before. This cycle requires one or two coats at a total consumption rate 0.2 kg/m².

Apply **PU 200 FINISH** directly on the substrate and spread it out evenly with a roller or apply by spray.

• Surface protection (**PU 200 FINISH**)

As soon as the surface has been treated with **PU 200 FINISH**, protect it from rain, strong currents of air, high temperatures, falling leaves or other such objects which could damage the surface.

• Cleaning

Remove **PU 200 FINISH** from tools before it hardens with polyurethane thinners; once hardened it may only be removed from tools using mechanical means.

• Line marking (**PU LINE**)

Dilute **PU LINE** with around 15-20% of water. Mix the product well before use. Where possible, use a drill at low speed to prevent entraining air into the product. Apply **PU LINE** with a brush, roller or by spray, depending on the type of substrate to be painted. The painting cycle comprises the application of 1 or 2 coats of **PU LINE**. Wait 6-12 hours between each coat in normal temperature and humidity conditions. Protect freshly-painted surfaces from

rain. If **PU LINE** comes into contact with water before it is completely dry it may not adhere correctly and the final finish may not be acceptable.

5. Hardening and step-on times

At +25°C **PU 200 FINISH** sets to foot traffic after 12 hours. Never allow vehicles to drive over the finish. Lower temperatures lead to longer hardening and step-on times.

CLEANING AND MAINTENANCE

Regular cleaning and maintenance operations increase the service life of coated surfaces, improve their

appearance and reduce their tendency to collect dirt. Playing surfaces created using **PU MULTISPORT COMFORT** are generally easy to clean with neutral or alkali detergents diluted with 5 to 10% of water. Suitable detergents and cleaning tools are readily available for cleaning this type of surface. Manufacturers of these detergents supply all the information required on the cleaning procedures to apply. Our Technical Services Department is also available for any information required.

NOTES

Procedures regarding the safe handling of the products are contained in the Material Safety Data Sheet for each single product in the system. The use of protective clothing and equipment is recommended when mixing and applying the products.

If the system is applied on different surfaces to those mentioned above, or in climatic conditions and/or for final uses not mentioned in the System Data Sheet, please contact the Technical Services Department at MAPEI S.p.A.

Technical Data

Thickness Nominal thickness 7 mm
System Shock absorption 18% EN 14808
Vertical Deformation 0,8 mm EN 14809
Flammability Bfl-S1 EN 13501-1
Fire Resistance EN ISO 9239-1 Critical Radiant Flux >11.00kW/m²
Technical Data / V.O.C. content – all components Solvent free
Resistance to rolling load > 1500 N EN 1569
Resistance to impact > 1200 gr @ 10°C EN 1517
Resistance to wear 230 mg EN ISO 2813
Resistance to indentation 0,55 mm @ 5 min EN 1516
Elongation at break (full structure) – 230 % DIN 53455
Tensile strength (full structure) – 13 N/mm² DIN 53455
Tear strength (full structure) – 27 N/mm DIN 53515

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