

# PU MULTISPORT COMFORT REC

High-elasticity multi-layered system made from two-component polyurethane resin in combination with granular rubber matting for indoor flooring and sports surfaces

## PRODUCTS USED IN THE SYSTEM

Adhesive: **Adesilex G19/ Ultrabond Turf 2 Stars pro**

Elastic mat: **Mapecomfort R**

Polyurethane sealer: **PU Sealer 750**

Polyurethane self-leveller: **PU 700 SL**

Polyurethane paint: **PU 200 Finish**

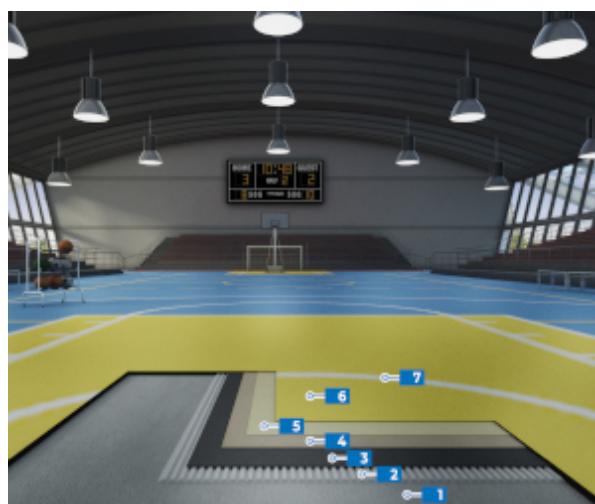
Polyurethane line markings: **PU 200 Finish**

## PERFORMANCE CHARACTERISTICS

**PU MULTISPORT COMFORT REC** may be applied on existing flooring or on both concrete and asphalt substrate.

Thanks to its elastic properties, **PU MULTISPORT COMFORT REC** provides a good balance between stability, fluid movements and quick, safe changes in direction, as well as a higher level of comfort, even with frequent use. This particular characteristics help reducing the effects of impact trauma.

The elastomeric composition of **PU MULTISPORT COMFORT REC** considerably reduces the level of acoustic impact caused by footfall, bouncing balls or physical activity in general.



- 1 Concrete
- 2 Adhesive **Adesilex G 19 / Ultrabond 2 Stars Pro**
- 3 Elastic mat **Mapecomfort R**
- 4 Polyurethane sealer **PU Sealer 750**
- 5 Polyurethane self-leveller **PU 700 SL**
- 6 Polyurethane paint **PU 200 Finish**
- 7 Polyurethane line markings **PU 200 Finish**

## PERFORMANCE AND ADVANTAGES

- Good comfort when used.
- May be applied on existing flooring or on both concrete and asphalt substrate.
- Localised bodyweight distribution on the surface limited to the point of contact, for better postural stability for users.
- Optimal elastic response to facilitate a good balance between stability and more fluid movements.
- Long lasting colour.
- Creates a multi-functional, flat, seamless surface.
- Wide range of colours available upon request.

## FINAL USE

- Multi-purpose areas
- Volleyball
- Basketball
- Handball
- Futsal

## SURFACE PREPARATION

### 1. Characteristics of the substrate

Before applying **PU MULTISPORT COMFORT REC** system, carefully analyse the substrate on which the covering is to be applied. 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 (for concrete) could lead to detachment and/or blisters. The substrate's mechanical strength must comply with its intended use and with the respective Sports Associations and Federations guidelines, if present.

## 2. 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 single brush floor machine and then rinse again with plenty of 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 **Adesilex G19** or adhesives from the **Ultrabond Turf** range, 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<sup>2</sup>. 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 areas of concrete with cementitious mortars from the **Mapegrout** or **Planitop** range or equivalent Mapei products.
- Expansion joints must be sealed by applying **Mapefoam** and **Mapeflex PU 45 FT**, **Mapeflex PU 40** or equivalent Mapei products, broadcasting with **Quartz 0.5** while the sealant is till fresh.

### Bituminous substrates

- Fill and repair any cracks using fillers for high thickness applications such as **Mapeflex Xpress 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 **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**.

## 3. Preliminary checks before application

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

## 4. 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 COMFORT REC** system on a flat concrete substrate. Application on rougher surfaces could lead to an increase in consumption and longer curing times. In particular, consumption rates of **Adesilex G 19** adhesive may vary according to the type of substrate and the preparation carried out on the surface. Depending on the type of substrates, **Ultrabond Turf 2 Stars Pro** two-component adhesive may be used.

### Yield of materials:

#### *Bonding Mapecomfort R (from 4 to 9 mm):*

#### Concrete substrate:

**Adesilex G19 / Ultrabond Turf 2 Stars / Ultrabond 2 Stars Pro:** approx. 0.5 - 0.7 kg/ m<sup>2</sup>.

#### Asphalt substrate:

**Ultrabond Turf 2 Stars / Ultrabond 2 Stars Pro:** approx. 1-2 kg/ m<sup>2</sup>.

#### **Sealer:**

**PU SEALER 750** (1 coat) approx. 0.5 kg/m<sup>2</sup>

#### **Self-leveller:**

**PU 700 SL** (1 or 2 coats) approx. 2.6 kg/m<sup>2</sup> to obtain 2 mm of thickness.

#### **Paint:**

**PU 200 FINISH** (2 coats) approx. 0.1 kg/m<sup>2</sup> (for each coat)

#### **Line markings:**

**PU 200 FINISH** (2 coats) consumption to be verified according to the type of markings.

**Notes:** using mats with different thicknesses (e.g. **Mapecomfort R** from 4 to 9 mm) will modify the final elastic-mechanical properties of the flooring. In such cases always verify compliance to project requirements and renderings before installation with MAPEI Technical Services.

## **5. Cleaning**

Please refer to the respective technical data sheets of products to clean tools used during application.

## **6. Hardening and step-on times**

Once the system is complete, at +23°C and 50% R.H., the surface sets to foot traffic after 12 hours. Lower temperatures lead to longer curing times.

## **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.

## **TECHNICAL DATA**

### **PERFORMANCE CHARACTERISTICS OF PU MULTISPORT COMFORT REC SYSTEM**

**Average thickness of the system (referred to application of Mapecomfort R from 4 mm thickness)**

6 mm

<b>STANDARD</b>	<b>TEST</b>	<b>RESULTS</b>
EN 13501-1	Reaction to fire	Cfl - S1

## **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 of each product, available from our website [www.mapei.com](http://www.mapei.com).

## **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.**

**Mapei S.p.A.**

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