

# PU GYM REFRESH

Two-component coloured water-based aliphatic polyurethane topcoating for sports and urban flooring



## DESCRIPTION

**PU Gym Refresh** is a water-based aliphatic polyurethane topcoating, specifically formulated in MAPEI Research & Development laboratories, for durable coating and protection of sports and leisure flooring.

## WHERE TO USE

- Protecting and colouring resilient, flooring such as PVC, rubber or linoleum indoor sports flooring.
- Redevelopment and refurbishment of indoor sports flooring such as in school or private gyms, fitness centres, etc.
- Refurbishment of the surface profile of polyurethane flooring for indoor sports use.
- Game marking on both new and existing polyurethane or resilient sports flooring.
- Protection and colouring of concrete surfaces in high foot traffic areas, such as grandstands of indoor sports facilities, surfaces adjacent to sports flooring.
- Protection and colouring of outdoor cycling concrete surfaces.

## TECHNICAL CHARACTERISTICS

**PU Gym Refresh** is a two-component water-based aliphatic polyurethane topcoating. Thanks to the product's high hide capacity and uniform colour, **PU Gym Refresh** may be used to refurbish the surface of existing sports floors and outside in urban areas.

**PU Gym Refresh** is highly resistant to abrasion and flooring such as and improves mechanical properties, thereby maintaining both the integrity of joints in prefabricated floors subjected to frequent cleaning and the durability of the surface of floors. The special water-based formulation of **PU Gym Refresh** makes the product odourless, which means it is suitable for use in closed environments and makes the work of floor layers easier during application. Thanks to its special chemical composition, **PU Gym Refresh** is particularly resistant to UV rays making it suitable for outdoor applications.

**PU Gym Refresh** is available in a wide range of different colours, which may also be mixed and combined using the **ColorMap** automatic colouring system to obtain customized colours.

## RECOMMENDATIONS

- Use **PU Gym Refresh** only at temperatures between +10°C and +35°C.
- Do not apply **PU Gym Refresh** under direct sunlight and on days with particularly high temperatures in order to avoid excessively fast drying.
- Do not use partial quantities of the components to avoid mixing errors; the product may not harden correctly.
- Do not expose the mixed product to direct sources of heat.
- If the topcoating is applied in several coats, do not exceed the maximum recoat time of 2 to 48 hours. After more than 48 hours, the surface will need to be adequately prepared with **Ultracoat Pad** (red or green).
- Use suitable specific cleaning equipment and detergents to clean the surfaces coated with **PU Gym Refresh**, depending on the type of dirt or stain to be removed.
- Do not apply **PU Gym Refresh** on dusty, crumbling or weak surfaces, on substrates with oil or grease stains or with stains in general or on surfaces free from hydrostatic pressure. In such cases, the substrate needs to be treated beforehand by adopting the most appropriate technical solutions and then checked to make sure it is feasible to apply **PU Gym Refresh**.

## APPLICATION PROCEDURE

### Preparation of the substrate

The application substrate for **PU Gym Refresh** must be consistent, mechanically resistant, flat and free of parts in the process of detachment. In particular, the laying surface of the coating must have a mechanical resistance suitable for the loads to which the flooring will be subjected during use.

The surface must be clean and dry and have no traces of oil, wax or any other contaminant. If the surface to be coated has already been treated with another type of finishing product, remove any residues of the topcoating in order to obtain a uniform surface.

Carefully clean the surface with a suitable degreasing and wax-removal product (**Ultracare HD Cleaner** or **Mapefloor Wax Remover**).

For application on cementitious conglomerate substrates, the surface must be treated with suitable mechanical equipment (e.g., shot blasting or diamond disc sanding) in order to remove all traces of dirt and cement milk, crumbly or detached parts and make the surface slightly rough and absorbent. Before proceeding with the laying, the surface dust must be thoroughly vacuumed. Subsequently, to allow the correct adhesion of **PU Gym Refresh** on concrete surfaces, the application on a dry base of a suitable primer is necessary. For surfaces with residual moisture up to 3%, use **Primer SN** or alternatively **Mapecoat TNS Primer EPW**, according to the destination of use and the loads the flooring will be subjected to.

In the presence of residual moisture between 3-6%, apply an adequate chemical barrier made with the three-component epoxy-cement primer **Triblock P**. The first coat of **PU Gym Refresh** must be applied between a minimum of 12h and a maximum of 48h from the application of **Primer SN** without sowing quartz sand, while within a minimum of 24h and a maximum of 48h in the case of a chemical barrier with **Triblock P**. Any present cracks must be sealed using suitable filling products, such as **Eporip** or **Eporip SCR** epoxy resin for injections. Any repairs of portions of degraded concrete, smoothing or plasters, can be performed with cementitious mortars from the **Mapegrout** or **Planitop** line, to be selected based on the restoration needs and the loads to which the flooring is subjected. **PU Gym Refresh** must be applied on a regularized support that allows a homogeneous and uniform application.

### Preparation and application of the product

Mix component A with component B with a drill at low speed, taking care to avoid entraining air into the product. Depending on environmental conditions, **PU Gym Refresh** can be diluted with water up to a maximum of 10 percent. We recommend preparing only the amount which may be applied within the maximum workability time (2 hours). Leave **PU Gym Refresh** to stand for 5 to 10 mins. after mixing and then apply the product with a medium-pile roller (such as **Ultracoat Roller Sport Base** or **Ultracoat Roller Sport Finish**) or by airless spray. To ensure coverage of the surface is even and regular, it is recommended to apply the product in two criss-cross coats.

## PRECAUTIONS TO BE TAKEN DURING PREPARATION AND APPLICATION

- Do not apply on wet surfaces or surfaces still damp after hydro-cleaning: adhesion of the **PU Gym Refresh** coating may be affected.
- Do not apply if the temperature is below +10°C or above +35°C.
- Do not apply if the temperature of the substrate is lower than +10°C or higher than +30°C.
- Do not apply when relative humidity is above 85%.

## CLEANING

Tools and residuals of **PU Gym Refresh** may be cleaned with water while the product is still fresh. Once hardened, the product may only be removed mechanically.

## CONSUMPTION

The consumption rate for **PU Gym Refresh** is heavily influenced by the absorption and roughness of the substrate and by the application method used. The indicative consumption is approximately 0.08 ÷ 0.1 kg/m<sup>2</sup> per coat. The cycle requires the application of at least 2 coats.

## PACKAGING

7 kg units (comp. A+B = 6+1).

## STORAGE AND DISPOSAL

**PU Gym Refresh** remains stable for 12 months if stored in a dry place away from sources of heat at a temperature of +5°C to +30°C. Protect from frost. For transport at low temperatures, use vehicles with temperature-controlled units.

## 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](http://www.mapei.com).

PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

	COLOURED	
	comp. A	comp. B
Consistency:	liquid	liquid
Colour:	coloured pigment	transparent
EMICODE:	EC1 - very low emission	

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

Mixing ratio by weight:	A : B = 6 : 1
Colour of mix:	coloured
Consistency of mix:	fluid
Viscosity part A+B (Ford Cup nr. 4):	50 secs.
Dust dry:	approx. 30 min.

Set to the touch:	approx. 50 min.
Re-coating (if required):	min. 2 hours - max. 48 hours (after more than 48 hours, the surface will need to be adequately prepared with a red or green <b>Ultracoat Pad</b> )
Set to foot traffic:	16 hours
Ready for use:	24 hours
Reaction to fire according to EN 13501-1:	BF -s1
Reaction to fire according to EN 13823:	Bs1-d0

## FINAL PERFORMANCE

Gloss level (approximate value):	10
Slip-resistance in compliance with DIN 51130 and AS 4586:	R11
Slip-resistance (barefoot) in compliance with DIN 51097 and AS 4586:	A+B
Slip-resistance according to EN 13036-4 (pendulum method):	– dry: 90; – wet: 55 (class P5 according to AS 4586)

TYPE OF TEST	MEASUREMENT METHOD	RESULTS AND CONFORMITY TO REQUIREMENTS	
Dirt pick-up:	UNI 10792	$\Delta L \leq 3.0$	test passed
Smell:	UNI 11021 Appendix A	$\leq 1.0$	test passed
Resistance to washing/rinsing:	UNI 10560	$> 5000$	test passed
Mould resistance:	UNI 11021 Appendix C	$\leq 1.0$	test passed
Resistance to washing agents (active-chlorine products, alkaline degreasers, acid-based descalers):	UNI EN ISO 2812-1	no alteration	test passed
Resistance to disinfection agents:	UNI 11021 Appendix D	no alteration	test passed

## 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](http://www.mapei.com)

## 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.com](http://www.mapei.com).*

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