ULTRABOND TURF 2 STARS

Two-component, solvent-free polyurethane adhesive for the installation of synthetic turf





GEV-EMICODE EC 1 PLUS very low emission

DESCRIPTION

Ultrabond Turf 2 Stars is a two-component, solvent-free polyurethane adhesive specifically developed for the installation of synthetic turf sports surfaces, in particular for those activities requiring substrates with high elastic-mechanical performances.

WHERE TO USE

- Indoor and outdoor installation of synthetic turf through bonding of seaming tapes from **Ultrabond Turf** range (such as **Ultrabond Turf Tape 100**, **Ultrabond Turf Tape 300**, **Ultrabond Turf Tape Pro**).
- Installation of next-gen artificial turf for sports purposes.
- Installation of **Mapecoat TNS** range sports surfaces (such as **Mapecoat TNS Comfort** or **Mapecoat TNS Remove**), through bonding of high-performance mats to the substrate before applying the final layer.

TECHNICAL CHARACTERISTICS

Ultrabond Turf 2 Stars is a completely solvent-free polyurethane adhesive, made up of two components: part A, a thick paste and part B, hardener with fluid liquid consistency. The pre-dosed quantities of the two components in each container facilitate the correct mixing of the product; a paste with uniform colour is obtained and easily applied manually using a notched trowel. The special rheology combined with the controlled viscosity of **Ultrabond Turf 2 Stars** makes the spreading of the adhesive on the total width of the seaming tapes much easier. An excellent ridge holding is obtained even in summer temperatures. **Ultrabond Turf 2 Stars** can be applied on damp surfaces, but any residue of standing water which could compromise the complete bonding of the system (seaming tape, adhesive and surface) has to be removed. The special formulation of **Ultrabond Turf 2 Stars** grants high tensile and tear strength to the hardened adhesive, thus making it suitable for the installation of systems with homologations such as FIFA.

MAPEI SPORTS SYSTEM TECHNOLOGY

PREPARATION AND APPLICATION PROCEDURE

Preparation of the substrate

The substrate on which the artificial turf is to be applied must be prepared according to to current regulations and standards and according to the type of sports activity foreseen (e.g. Soccer, Rugby, Hockey etc.). The substrate of the playing surface, as well as the artificial turf system must comply with technical specifications required by the respective Federations, if present, such as FIFA (Handbook Quality for Football), One Turf IRB (International Rugby Board), etc.

Conditioning of the artificial turf

The artificial turf is usually packed in rolls and for this reason it tends to warp, especially at low temperatures. It is recommended to unroll the turf a few hours before bonding with **Ultrabond Turf 2 Stars**, so that the warping is reduced and the artificial turf can regain its original shape. If **Ultrabond Turf 2 Stars** is used for bonding high-performance prefabricated rubber mats (e.g. **Mapecomfort R** for resin surfaces) or sports surfaces different from synthetic turf, it is recommended to follow the supplier's directions for a correct conditioning of the materials to be installed.

Mixing Ultrabond Turf 2 Stars

The two components of **Ultrabond Turf 2 Stars** are packed in pre-dosed containers (A+B) (90:10 parts by weight) at fixed quantities, so that a correct mixing ratio is granted. In fact, even a partial change of A and B components' dosage would compromise the correct reticulation and the final performances of the adhesive. Pour **Ultrabond Turf 2 Stars** component B into the container of component A and then mix with a low-speed mechanical stirrer. Be careful not to entrain air into the mix and stir until a paste with even texture and colour is obtained.

Spreading the adhesive Ultrabond Turf 2 Stars

Make sure surfaces to be bonded are clean, sound and free from standing water, oil, grease or any inconsistency that could affect adhesion. The adhesive can be applied in presence of humidity, nonetheless any trace of standing water must be removed beforehand. Apply **Ultrabond Turf 2 Stars** on the seaming tapes using a n.3 or 4 MAPEI notched trowel or with a suitable continuous and controlled spreading system. Make sure to distribute the adhesive evenly on the whole width of the tapes (such as **Ultrabond Turf Tape Pro**, **Ultrabond Turf Tape 100** or **Ultrabond Turf Tape 300**). If **Ultrabond Turf 2 Stars** is used for installation of bonded sports surfaces such as high-performance prefabricated rubber mats, it is recommended to follow the directions from the material's supplier about the type of system to be applied and the planned surface to be bonded. Open time of **Ultrabond Turf 2 Stars** in normal conditions (+23°C and 50% R.H.) is of approx. 40-45 minutes from the complete mixing of the two components. Setting and open time are heavily influenced by the surrounding temperature at the moment of application.

Laying the turf

For a correct installation of the artificial turf always follow the exact supplier's directions for the laying procedure. The artificial turf rolls must be laid on the seaming tape covered with fresh **Ultrabond Turf 2 Stars** within 40-45 minutes from mixing (at +23°C and 50% R.H.). It is advisable to apply a mechanic pressure after laying, for example by passing a roller on the bonded surface to ensure complete contact between the turf backing and the adhesive and at the same time level off any irregularities that could compromise the flatness of the surface.

Ready for use

Sports surfaces installed using **Ultrabond Turf 2 Stars** can be set to light foot traffic after approx. 12-24 hours. Final performances are reached after approx. 7 days at +23% and 50% R.H.

RECOMMENDATIONS

- In case of application at high temperatures (over +35°C) the pot life of the mix may be considerably reduced.
- Store **Ultrabond Turf 2 Stars** component B at a temperature above +5°C for better performances.
- Mix only the whole amount of the containers. Partial mixing would require very high precision in weighing the two components and for this reason it is not recommended.

MAPEI
SPORTS SYSTEM TECHNOLOGY

- For applications at temperatures between 0 and +5°C **Ultrabond Turf 2 Stars** can be used in combination with **Ultrabond Turf Catalyst**, a specific catalyst which increases the reaction speed at low temperatures. Dosage can vary according to the desired reaction time during installation. For further information, please refer to the respective Technical Data Sheet.

CLEANING

Clean tools and residues of the adhesive immediately while it is still fresh. Once hardened, the adhesive may only be removed mechanically.

CONSUMPTION

When bonding synthetic grass, the consumption rate of **Ultrabond Turf 2 Stars** depends on the type of seaming tape and the application method used:

- approx. 0.4 - 0.5 kg per linear metre of 40 cm wide seaming tape (5 kg of product for 10 linear metres).
- approx. 0.3 - 0.4 kg per linear metre of 30 cm wide seaming tape (4 kg of product for 10 linear metres).

If **Ultrabond Turf 2 Stars** is used for bonding sports surfaces created with high-performance prefabricated rubber mats (e.g. **Mapecomfort R**), consumption per m^2 can vary consistently according to the type of substrate (concrete or bituminous conglomerate), ranging from a minimum of 1 kg to a maximum of 2 kg per m^2.

PACKAGING

Ultrabond Turf 2 Stars has a green colour and is supplied in 5 kg, 10 kg and 15 kg plastic drums.

STORAGE

Ultrabond Turf 2 Stars remains stable for 12 months if stored in its original closed containers in a controlled environment. Protect **Ultrabond Turf 2 Stars** component B from frost both during transport and storage. Avoid prolonged exposure of the product at temperatures below +5°C and plan transport with controlled temperature 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.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY		
	component A	**component B**
Consistency:	thick paste	fluid liquid
Colour:	green	brown
Density (g/cm³):	1.70 ± 0.05	1.2 ± 0.01

MAPEI SPORTS SYSTEM TECHNOLOGY

Dry solids content (%):	100	100
EMICODE:	EC1 Plus – very low emission	

APPLICATION DATA (at +23°C and 50% R.H.)	
Mixing ratio:	component A : component B = 90 : 10
Density of mix (g/cm³):	1.60 ± 0.05
Pot life of mix:	approx. 30 minutes
Application temperature range:	from +5°C to +35°C
Open time:	40-45 minutes
Initial setting time:	approx. 2 hours
Final setting:	approx. 4 hours
Set to light foot traffic:	after 12-24 hours
Ready for use:	after 7 days
Temperature when in service:	from -40°C a +100°C

FINAL PERFORMANCES		
Shear strength (EN 12228 - EN 13744):	> 1500 N (standard conditions)	> 1500 N (after 14 days of water conditioning at +70°C)
Peel strength (EN 12228 - EN 13744) (N):	> 100 N (standard conditions)	> 100 N (after 14 days of water conditioning at +70°C)

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

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.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

Mapei S.p.A.

Via Cafiero, 22, 20158, Milano

+39-02-376731 www.mapei.com mapei@mapei.it

6401-8-2026 en (IT)

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution

MAPEI SPORTS SYSTEM TECHNOLOGY