

POLYURETHANE (PU) SELF-LEVELLING COATING for sports surfaces, two component PU

1 General Data

Application Fields

PROLASTIC C570® is used for elastic sports surfaces as self-levelling coating for sandwich systems (top coat) and full PU systems (binder for all layers). Typical uses for these high-quality systems are ball game courts, multi-purpose and tennis courts, school playgrounds but especially athletic tracks and runways.

PROLASTIC C570® is also frequently used for the renovation and renewing of existing PU sports surfaces (re-topping).

Product Description

PROLASTIC C570® is a pigmented and solvent free, two component PU self levelling coating with outstanding and lasting elastic properties, durability and wear resistance.

Due to its long pot life PROLASTIC C570 is easy to apply, it shows excellent resistance to moisture during the curing phase and a good curing behaviour. It is suitable for the installation of sports surfaces in all climate zones of the world.

The product fulfils German AgBB requirement for VOC emission.



Tested Sports Surfacing Systems

In combination with broadcasted EPDM or rubber granules in PROLASTIC **RACE** systems:

- PROLASTIC**SW competition** - Sandwich-system
- PROLASTIC**M olympic** - Massive-PU-system
- PROLASTIC**M olympic gold** - Massive-PU-system
- PROLASTIC **ULTRA** - Massive PU System
- Re-topping of old PU-systems

Technical Support

For detailed descriptions of PRO-ATHLETIC Systems see PRO-ATHLETIC System data sheets or contact our technical support.

E-Mail: Info@pro-athleticsports.com

(A) Technical Data

Mixture (A+B)

1. Density (23°C) (DIN 53217)	1.20 g/cm ³
2. Viscosity	ca. 3 800 mPas
3. Shore A hardness (EN ISO 866) after 24 h after 28 days	(23°C/ 50% relative humidity) A 30 - 35 A 64 - 70
4. Packing size	Comp. A: 3 x 240 kg Comp. B: 2 x 210 kg
5. Mixing ratio A : B parts by weight parts by volume	100: 58 100: 70
6. Colour	oxide red, others on request
7. Shelf life / Storage	12 months at 10–25°C
8. Permissible relative humidity	min. 30% - max. 90%
9. Substrate and application temperature	10-30°C (min. 3°C above dew point)
10. Pot life (23°C)	ca. 30 minutes
11. Can be walked on (23°C) (broadcast surface)	after 18 hours
12. Ready for removing excess granules (23°C/50% relative humidity)	after 20 hours
13. Material consumption per layer	2.0 – 3.0 kg/m ²
14. Tensile strength (DIN 53504)	2.2 N/mm ²
15. Elongation at break (DIN 53504)	ca. 180 %
16. Tear strength (DIN 53515)	ca. 4 N/mm ²

POLYURETHANE (PU) SELF-LEVELLING COATING for sports surfaces, two component PU

2 Processing Instructions

Substrate Preparation

Sandwich-systems (PROLASTICSW competition):

The application of PROLASTIC C570 on freshly pore-sealed surfaces can be executed without any primer during the first 12 hours after the application of PORPLASTIC L370. Substrate has to be dry and clean. In case of longer intervals between the layers the use of PORPLASTIC P270 as bonding agent is mandatory.

Full-PU-systems (PROLASTICM Olympic /gold):

The dry and load bearing substrate (asphalt or concrete) has to be clean and free of loose particles and substances which impair adhesion such as oil, grease, paint or other contaminants. For achieving an optimal adhesion between the PU coating and the substrate it is necessary to apply PROLASTIC P270 as primer (imperative on concrete). The bonding strength of the substrate must be at least 1.0 N/mm². The surface moisture of concrete should not exceed 4 % (by weight). The application of PROLASTIC C570 should then be realized 4 – 6 hours in any case within 24 hours after the primer.

Re-topping:

We advice to contact us before re-topping old PU mats. Adhesion tests should be carried out and they will determine the substrate preparation. It may be necessary to grind, remove the dust and apply PROLASTIC P270 as primer before the installation of PROLASTIC C570®. In all cases the surface must be thoroughly cleaned by high-pressure water and left to completely dry. Then PORPLASTIC P270 is applied onto the pre-treated substrate preferably by using an airless spray equipment.

Processing

PROLASTIC C570® is ready-to-use but component A has to be homogenised by rolling the drums before application. The optimal processing temperature is between 15 – 25°C.

For application pour component A and component B into a mixing container in the ratio 100 : 58 parts by weight or 100:70 parts by volume. Use a slow rotating mixer rotating at approximately 300 rpm for at least 2 minutes until the blend is homogeneous and streak free. Ensure that the mixer reaches the sides and bottom areas of the mixing vessel. Pour the mix into another clean container and mix it again for one additional minute.

The well mixed material is applied on the pre-treated substrate with a squeegee or best a notched trowel (selection of tooth size determines the thickness of the layer).

Within 5 – 15 minutes, the fresh surface has to be covered with excess EPDM or rubber granules (appropriate size usually 1 – 3 mm or 1- 4 mm). Avoid bald spots and eventually broadcast additional granules after some minutes. Excess and loose granules are removed after curing and can be reused.

For achieving a full PU-system with a thickness of about 12 mm in total usually 3 layers will be applied. The top layer will be broadcasted with EPDM the others with recycled rubber granules.

During the first hours after application, the coating has to be protected from direct contact with water as this could cause foaming of the material. In case of (expected) rain, PROLASTIC C570® should not be applied.

At low temperatures and humidity, the speed of reaction is reduced resulting in a longer pot life, re-coating interval and open time. The speed of reaction is accelerated at high temperatures and humidity and the converse is true. Direct sunshine shortens the time frames considerably.

Cleaning

Tools should be cleaned using VIASOL SO-X12. Never use water or alcoholic solvents as cleaners!

Safety Instructions

For health and safety protection, transport regulations and waste management please consider the Material Safety Data Sheet. Users are advised to wear gloves and eye protection when mixing or applying PROLASTIC C570®. The product is non hazardous in its cured condition. The product meets the requirements of the EC directive 2004/42/EC for VOC content.

Disclaimer

All information in this technical data sheet is based on our current knowledge and experience. This does not release the applicator from performing their own tests as many application factors, beyond our control, affect the application of our product. No guarantee of characteristics or suitability for a special purpose can be derived from this information. All present data, descriptions, drawings, photos, ratios, weights etc. are subject to change without prior notice and do not represent contracted characteristics of the product.

Due to different materials, sub-bases and working conditions, no guarantee of an application result or any liability claims can be derived from these details or from an unwritten technical advice except for liability claims based on:

- damage to life, body or health resulting from a negligent violation of obligations or a deliberate or negligent violation of obligation of a legal representative or assistant and
- if we are charged with intention or gross negligence.

The user has to test the products for their intended use. The user is responsible for following existing laws and orders and for observing third party trade mark rights.

As all PRO-ATHLETIC data sheets are updated on a regular basis it is the users responsibility to obtain the most recent issue (see www.pro-athleticsports.com or contact us directly).