

CLEANING AND MAINTENANCE OF POLYTAN SYNTHETIC SURFACES USAGE AND CLEANING INSTRUCTIONS

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1. INTRODUCTION

By choosing Polytan, you will receive high-quality, professionally installed sports surfaces that are precisely matched to your needs. In addition, you will have the security of always having a competent partner at your side.

As a full-range supplier, we not only offer accessories, such as the goals, long jump bars or basketball hoops required to complete your venue, we also have specialised machines that we have developed ourselves for efficiently cleaning, servicing and repairing our synthetic surfaces. To ensure a consistently high quality of use and retain the highest possible value of your Polytan sports surface, we can advise you in the choice of the most appropriate cleaning products for your Polytan synthetic surface.

2. OBJECTIVE AND PURPOSE

Our objective in producing this Service Leaflet is to provide you with some important cleaning and maintenance guidelines so that the performance of your high-quality Polytan synthetic surfaces is maintained over time.

3. POLYTAN SYNTHETIC SURFACES

Polytan synthetic surfaces are designed to retain their full functionality, even after many years of intensive use. However, over a long period of time, dirt, dust, pollen, environmental and weather influences, such as rain, snow or strong sunlight take their toll on even the thickest surface. It is for these reasons, not to mention to satisfy the sporting and protective requirements^{1,2}, that you should ensure that your Polytan synthetic surfaces are exposed to uniform wear and professionally cleaned at regular intervals.

This Service Leaflet is primarily designed for the products listed below:

▪ Rekortan PUR



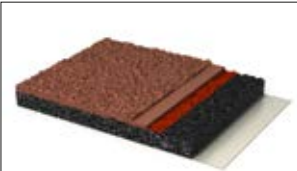
▪ Tartan GOLD



▪ Rekortan PUR Indoor



▪ Rekortan M



▪ Rekortan M Indoor



▪ Spurtan WS



▪ Spurtan WSS



▪ Spurtan SL



▪ Spurtan SES



¹ Sporting functions are characteristics of the synthetic surface that facilitate the best possible use of the various methods employed in the individual sport disciplines while at the same time avoiding undue risks in the loading of the musculoskeletal system and excessive energy consumption (fatigue).

² Protective functions are characteristics of the synthetic surface that relieve the musculoskeletal system of athletes when running, jumping or participating in ball games and reduce the risk of injury if they fall over.

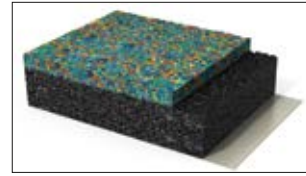
■ PolyPlay S



■ PolyPlay SE



■ PolyPlay FS



■ Re-Topping-Systems



Descriptions of the individual products can be found on our homepage www.polytan.com

4. GENERAL INFORMATION

4.1 RULES AND REGULATIONS

General regulations and laws must be noted and complied with. These include the accident prevention regulations.³

4.2 RAL QUALITY MARKS

Services provided by Polytan, such as cleaning and retopping, are subject to the requirements of the RAL 943 quality assurance system and are certified by the use of the RAL Quality Marks 943/2 and 943/4.⁴

„[...] The RAL quality assurance system ensures that the RAL Quality Marks (Gütezeichen) represent particularly high-quality products and services. The Quality Assurance and Test Specifications cover the characteristics that are important for the utilisation of a product or service carrying the Quality Mark (Gütezeichen). RAL defines these specifications by involving the institutions affected by the Quality Mark (Gütezeichen), such as business and consumer organisations, authorities and testing institutions. Manufacturers and service providers, as well as independent testers regularly monitor that the regulations are being observed. [...]“⁵

Polytan is a professional service partner whose RAL certification provides the reassurance that it will consistently supply high-quality products and services that reflect the latest state-of-the-art.

5. USAGE

5.1 GENERAL

Proper use of Polytan synthetic surfaces is essential if they are to satisfy the sporting and protective requirements placed upon them.

³This list is not intended to be complete.

⁴For further information, visit <http://ral-ggk.eu/>

⁵For the RAL Quality Marks, visit: <http://www.ral-guetezeichen.de/fragen-verbraucher.html?&L=1> [issue: 19.06.2015].

5.2 INSTALLATION

To ensure the long-term capability of a Polytan synthetic surface, it must be left to harden sufficiently after installation before it is used. Depending on weather conditions, this hardening time can take between one and two weeks. No sporting activities should be carried out during this time. No non-sport related activities are permitted.

5.3 SPORTING USE

5.3.1 General notes regarding sporting use

As a basic principle, the only sporting activities that should be carried out on the synthetic surfaces are those for which it was designed. This will allow the surfaces to retain their sporting and protective functions over the long term.

Certain parts of the track, such as the inside lane or start and take-off areas, are used more frequently and will consequently wear more quickly. We therefore recommend that these be avoided when training to ensure more even wear over the entire surface.

5.3.2 Sports shoes

When carrying out sporting activities, the correct type of sports shoe for the sport or surface in question must be used. We recommend the use of pyramid or compression spikes, as they tend to compress the surface rather than penetrate it. The surface thus provides the athlete with more energy and does not wear out so rapidly. When training, we generally recommend shoes that have spikes no longer than 6 mm. For competitions, spikes up to 12 mm in length can be used, but only on type E surfaces as shown in the following table as per EN 14877.

SURFACE TYPE ACCORDING TO EN 14877	SYNTHETIC	SURFACE SHOE TYPE
Type E	Rekortan PUR/ PUR Indoor	trainers or spiked shoes with spikes up to 6 mm in length ⁶
Type D	Tartan GOLD	trainers or spiked shoes with spikes up to 6 mm in length ⁶
Type D	Rekortan M/M Indoor	trainers or spiked shoes with spikes up to 6 mm in length ⁷
Type A	Spartan WS/WSS	trainers or spiked shoes with spikes up to 6 mm in length ⁷
Type A	Spartan SES/SL	trainers or spiked shoes with spikes up to 6 mm in length ⁷
Type B	PolyPlay S	sports shoes with flat soles
Type C	PolyPlay SE	sports shoes with flat soles
Type B	PolyPlay FS	shoes with flat soles

⁶ Longer spikes will cause the surface to wear more quickly. For competition purposes, spikes up to 12 mm in length can be used, but only in the long jump, high jump, pole vaulting and javelin throwing areas.

⁷ Longer spikes will cause the surface to wear more quickly. For competition purposes, spikes up to 9 mm in length can be used, but only in the long jump, high jump, pole vaulting and javelin throwing areas.

5.3.3 Cycling and roller sports

Cycling and roller sports (incl. wheelchair sports) can cause discolouration of the surface as a result of abrasion of the tyres caused by hard braking or skidding. This type of discolouration can be removed by intensive cleaning by Polytan or one of its accredited service partners.

Roller sports involving the use of sticks (Nordic Skating) may only be carried out if the ends of the sticks are fitted with blunt rubber studs. Sticks with metal or plastic tips are not permitted.

5.3.4 Temporary colour markings

Temporary or provisional colour markings may only be used if they can be easily removed, do not damage the synthetic surface and comply with environmental protection requirements. Paints and other liquid colourings should not be used. Adhesive tape may only be used if it is easy to remove and leaves no residues.

5.3.5 Standing water

If, following heavy rain, there is any standing water on the sports areas that prevents sporting activities from being carried out, the surfaces can be cleared during events using sponge rollers or suction devices.

5.4 NON-SPORT RELATED ACTIVITIES

5.4.1 Non-sport related loading

Non-sport related loading should basically be avoided, as it brings with it a much higher risk of damaging the surface. If, however, a non-sport related activity is being planned, this should be discussed in advance with a member of the Polytan team.

5.4.2 Vehicles

Vehicles are only permitted to drive onto Polytan synthetic surfaces in exceptional circumstances. There are a number of ways in which vehicles can damage the surface, e.g. sudden starting, spinning of the wheels or by excessive point loading. Oil leaks can also cause marks on the surface and are extremely difficult and time-consuming to remove.

Polytan synthetic surfaces should only be driven on by vehicles fitted with wide/low-pressure tyres that do not have sharp or pointed profiles. The maximum weight of the vehicle must not exceed 5 tonnes and it should have an average wheel loading of no more than 2 tonnes.⁷

If a heavier vehicle has to be used for some reason, then load distributing elements such as planking, webbing, etc., must be used. The pressure and point loading must still be kept as low as possible (under 500 kg/m²). Polytan is unable to accept liability for such heavy loads.⁷

5.4.3 Temporary structures

In situations where temporary structures, such as grandstands, concert stages, etc., are to be erected on Polytan synthetic surfaces, load distributing elements such as planking, webbing, etc., must be used. The pressure and point loading must still be kept as low as possible (under 500 kg/m²). Polytan is unable to accept liability for such heavy loads.⁸

5.4.4 Gatherings of large numbers of people

During gatherings of large numbers of people (e.g. concerts) in which visitors will be standing or sitting on the synthetic surfaces, the surfaces should be covered entirely by a watertight planking system, for example, to prevent damage from rubbish, chewing gum or a variety of liquids.

⁷ Vehicles must never drive onto PolyPlay FS surfaces, as these surfaces possess safety-relevant features that might be compromised by the high loading. The same applies for PolyPlay S synthetic surfaces on an unbound base layer.

⁸ Temporary structures must never be erected on PolyPlay FS surfaces, as these surfaces possess safety-relevant features that might be compromised by the high loading. The same applies for PolyPlay S synthetic surfaces on an unbound base layer.

6. CLEANING ACTIVITIES

6.1 GENERAL CLEANING INFORMATION

The following must always be observed when carrying out cleaning activities.

Do not use any chemical additives when wet cleaning. When using cleaning materials, always follow the manufacturer's instructions and ensure that you comply with the national and local safety and environmental legislation.

Minor damage, e.g. cracks, should be repaired immediately using the Polytan repair kit. Any markings must be renewed in good time according to how intensive the use is.



Professional cleaning by specialist companies

6.2 DISTINGUISHING BETWEEN CLEANING ACTIVITIES

We make a distinction between four types of cleaning activity:

- Inspection
- Basic cleaning
- Intensive cleaning
- Repair

6.3 CLEANING ACTIVITIES

6.3.1 General

It is important to retain the sporting and protective features of Polytan synthetic surfaces through regular cleaning. This is especially relevant for their surface properties and water permeability.

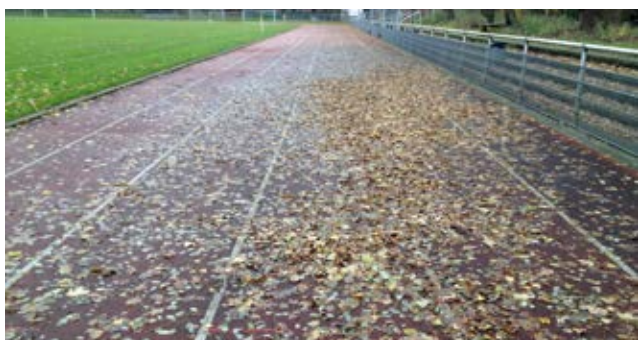
How often these inspection and cleaning activities are carried out will depend in particular on air contamination levels (e.g. proximity to industrial sites), the state of adjacent areas (e.g. long-jump pits, areas of vegetation) and how frequently the facilities are used (see Appendix, page 10).

Should any oil, fuel or chemical fluid spill onto the synthetic surfaces, the fluid must be bound by covering the affected area(s) immediately with sand or sawdust. This will help minimise the damage to the surface. Cigarettes, fireworks or open fires of any kind are not permitted in the vicinity of synthetic surfaces.

6.3.2 Inspection

Polytan synthetic surfaces must be inspected at regular intervals. Doing so will prevent damage and contamination and enable minor defects to be detected promptly. The surface should be checked every week for items of rubbish and vegetation (blossom, leaves, etc., depending on the time of year) as well as any loose material from sandpits or sports areas (e.g. rubber granulate). If necessary, these loose items should be removed without delay. The synthetic surface should be carefully inspected for damage at least once a quarter (see Appendix, page 10). It must also be inspected for damage immediately following any non-sporting event.

Check all drainage channels and gutters every month to see whether they need to be cleaned. A quarterly inspection will suffice in the case of enclosed drainage channels. An overview of the inspection activities can be found in the Appendix on pages 10 and 11.



Bad example: Very dirty synthetic surface



Good example: Cleaned synthetic surface

Besides the synthetic surface, the sporting equipment should also be inspected once a quarter, especially to ensure it is stable. Damaged equipment can also damage the surface. Damaged sporting equipment must be repaired or replaced without delay.

Sporting equipment includes the following:⁹

- Ball retaining/catching devices
- Basketball hoops
- Ground sockets
- Drainage covers
- Football and handball goals
- Light-athletics facilities (e.g. take-off boards)

⁹This list is not intended to be complete.

6.3.3 Basic cleaning

Basic cleaning is normally carried out using a dry cleaning method. If any loose items, such as rubbish or vegetation (blossom, leaves, etc.) are found on the synthetic surfaces during the weekly inspection, they should be removed without delay using a sweeper or a suction sweeper. The sweepers must be fitted with synthetic brushes. Metal brushes will damage the surface so must not be used. A leaf blower is another practical way of cleaning away loose items. Brush sweepers must be employed as “skimmers”, with only a small amount of pressure being applied to the rotating brushes.

Any weeds that start growing in the kerb joints must be removed without delay. Do not use any chemicals or open flame (e.g. gas burners) for this purpose.

Chewing gum can usually be removed by spraying it with an icing spray.



Basic cleaning can be carried out using a sweeper

6.3.4 Intensive cleaning

Wet cleaning should be carried out every 2-3 years, depending on how dirty the surface gets. This will remove all dirt, abraded matter, moss and algae from the surface.¹⁰

If the synthetic surface is in the shade or is bordered by vegetation, then it will tend to be affected by moss sooner. In such situations intensive cleaning should be carried out every year.



Bad example: Moss-covered synthetic surface



Good example: Clean surface

In the case of water-permeable surfaces that have not been cleaned for some time, there is a risk that plants may start growing following intensive cleaning. Seeds penetrate deeper and deeper into the surface as the years go by, and not even an intensive cleaning session will be able to completely clean such heavily contaminated surfaces. This is why it is essential to clean synthetic surfaces at regular intervals.

¹⁰Water-permeable surfaces such as Spurtan WS, WSS, PolyPlay S, SE, Spurtan SL or SES tend to exhibit moss or algae growth sooner than non-permeable surfaces (e.g. Rekortan PUR or M) so, depending on their location, should be cleaned more frequently.

In addition to the surface, the drainage system (drainage channels) should also be cleaned at regular intervals. Open channels are to be cleaned every month, enclosed ones every quarter (see Appendix, page 10). The following points must be taken into account:

- Cleaning of the inlet units, traps and outlets
- Cleaning of the point inlets and their traps
- Cleaning of the channels
- Inspecting the infeed point in the draining canal
- Inspecting the channels and covers for damage



Intensive cleaning by a specialist company

6.3.5 Repair

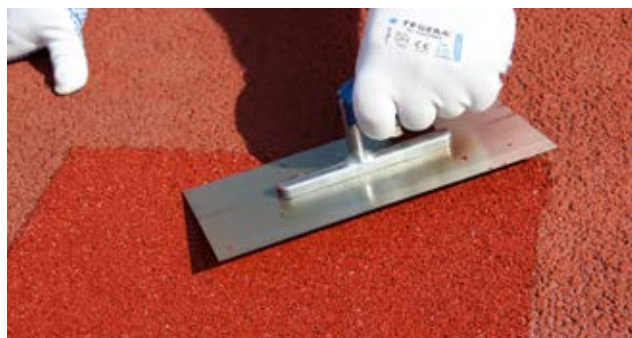
Polytan synthetic surfaces are extremely robust. However, even the most robust surfaces will suffer over time and require complete or partial refurbishment or repair. A refurbishment that is carried out in good time will keep the synthetic surface in good shape and avoid having to replace it completely. Polytan offers a retopping service for such cases.¹¹

Large-scale repairs should always be carried out by Polytan or one of our partner companies. Minor damage (e.g. small cracks up to 8 mm in size) can be repaired by trained personnel using a Polytan repair kit. However, we would always recommend that the repair is carried out by a specialist.

Running track and playing field markings should also be renewed if they have faded due to weathering or become worn as a result of intensive use. Relining should also only be carried out by Polytan or one of its partner companies.



Clearly apparent cracks



Repaired synthetic surface

¹¹Your Polytan contact will be able to provide you with detailed information on the subject of retopping.

7. WINTER USE – CLEARING ICE AND SNOW

If you want to use Polytan surfaces in the winter, ensure that only blunt attachments are used when clearing away ice and snow. The attachments must have rubber or soft plastic edges. The vehicles themselves must not have snow chains or spikes fitted, as these can damage the synthetic surface. Never spread salt or any other chemical antifreeze on the surfaces, as they will attack and damage the synthetic surfaces.

8. CLEANING EQUIPMENT

Polytan synthetic surfaces must only be cleaned using the appropriate cleaning equipment. We offer training programmes and special cleaning equipment and quickly carry out expert repairs when needed. We will also be happy to arrange a maintenance and service agreement with you.

APPENDIX

1 OVERVIEW OF INSPECTION AND CLEANING ACTIVITIES

CLEANING		ACTIVITIES	FREQUENCY					As required
			Weekly	Monthly	Quarterly	Annually	Every 2-3 years	
Inspection and basic cleaning	Removal of rubbish	Responsible service personnel	■					■ After events
	Inspection Damage	Responsible service personnel			■			■ After events
	Remove loose vegetation (pollen, leaves, etc.) using leaf blower or similar	Responsible service personnel	■ According to time of year	■ According to time of year				
	Remove weeds	Responsible service personnel						■
Intensive cleaning	Cleaning of drainage system	Responsible service personnel/ Specialist company		■ Open drainage channels	■ Enclosed gutters			
	In-depth cleaning	Specialist company				■ If in shade and with vegetation nearby	■	
Repairs	Repairing of cracks up to 8 mm in size	Responsible service personnel/ Specialist company						■
	Repairing of damage	Specialist company						■
	Relining	Specialist company						■
	Retopping	Specialist company						■

2 INSPECTION ACTIVITIES CHECKLIST

The following points should be taken into account when inspecting the synthetic surface:

Weekly:

- Rubbish
- Loose vegetation (e.g. grass cuttings, pollen, leaves)
- Loose material from adjacent areas (e.g. sand, gravel, mulch)
- Surface abrasion (e.g. loose granulate)
- Animal faeces
- Dead animals (e.g. earthworms)

Monthly:

- Drainage of open drainage channels

Quarterly:

- Detached surfaces
- Worn topping
- Worn marking
- Algae, moss growth
- Surface damage (e.g. detached, blistering, open joints, cracks)
- Drainage functionality
- Adjacent grassy areas and plant beds in good condition (e.g. not overgrown, root damage)
- Plant growth
- Cleaning omissions
- Damage to sporting equipment

3 POLYTAN SERVICE

Polytan sports surfaces are designed to retain their full functionality, even after many years of intensive use. However, over a long period of time, dirt, dust, pollen, environmental factors and weather influences such as rain, snow or strong sunlight take their toll on even the thickest surface. That is why we recommend that your Polytan sports surfaces are professionally cleaned at regular intervals.

As your service partner, Polytan provides expert personnel, special equipment and guidance to help you with this task. We offer training programmes and special cleaning equipment and quickly carry out expert repairs when needed.

We will also be happy to arrange a maintenance and service agreement with you. We are also your competent partner to rectify various damages – whether it's age-related wear and tear, improper use or vandalism. Depending on the nature and extent of the damage, a team of Polytan repair specialists is on hand ready to get your sports surface looking good and functioning properly in next to no time at all.

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