



SPORT | LEISURE

Regupol®

# Impact protection



Safe, elastic play areas

The right floor for every game



**BSW**

[www.berleburger.de](http://www.berleburger.de)

# Regupol safety flooring for impact protection

## Quality and Safety

Safety surfacing is essential on every children's playground. Planners and playground operators must decide which safety floor provides the most effective protection whilst at the same time taking economic and design factors into account. DIN EN 1177 tested and certified Regupol impact protection surfaces and elastic floors from BSW guarantee reliable safety in

this area. The price and durability of our products results in huge long-term cost savings in the area of playground maintenance. And finally the various designs that characterise Regupol impact protection offer every architect and landscape planner the right solution for every situation. Thousands of playgrounds, small sports pitches and other recreational

areas all over the world have been fitted with Regupol impact protection products over the last 30 years. BSW has always guaranteed the highest possible quality. Because we manufacture exclusively at our site in Bad Berleburg, with highly qualified and motivated employees. BSW employs over 300 employees and 25 trainees in five qualified professions.



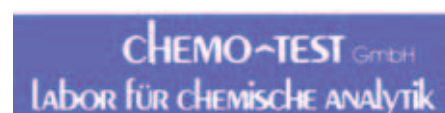
### Original Regupol

On the underside of our impact protection and elastic tiles you will find this imprinted quality seal. Regupol is the material from which we manufacture our impact protection and elastic products. Regupol stands for decades of experience, tested quality, first class raw materials, environmental friendliness and a long product life.



### TÜV impact protection test

Reliable impact protection values, independently assessed and confirmed in accordance with EN 1177. All guaranteed by the TÜV test mark. This is how you can tell that we take safety seriously. We don't claim anything that we can't prove.



### Tested for heavy metals

Using Regupol safety surfacing and elastic products on children's playgrounds means that you don't need to worry about contamination from heavy metals and arsenic. This is guaranteed not just by ourselves, but more importantly by the independent Chemo-Test test institute.



# Contents

## BASICS

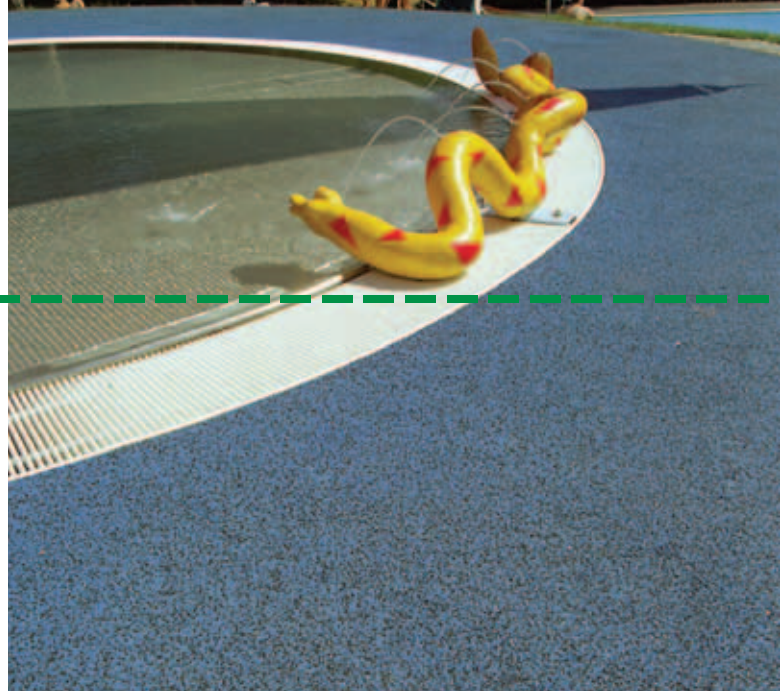
	Page
Quality and safety	2
Table of contents	3
The materials	4
Impact protection testing	5
Cost comparison Regupol – sand	6-7
The advantages	8-9

## PRODUCTS

	Page
Regupol impact protection tile FX	10
Regupol impact protection tile FXG	11
Regupol impact protection tile EPDM	12
Playfix	13
Playfix EPDM IS	14
Playfix Aqua	15
Pattern examples Playfix	16
EPDM colours	17
Formes & motives	18
Quality	19
Playfix Indoor	20
Colours Playfix Indoor	21
Regupol elastic tile E	22
Regupol elastic tile EL	23
Regupol paving stones VB	24
Regupol anti-stumble edging	25
Regupol edge restraints	26
Regupol palisade	27
Regupol sand pit edging	28
Regupol blocks, Regupol pollards	29

## TECHNICAL INFORMATION

	Page
Your resources	30
Pre- and aftersales service	31
Laying instructions tiles	32-33
Laying instructions paving stones	34-35
Laying instructions Playfix	36
Laying instructions edge restraints	37
Laying instructions palisade	38
Laying instructions sand pit edging	39
Laying instructions block steps	40
Laying instructions bollards	41
Overview sports flooring from BSW	42
Your BSW contact information	43



## The materials

The materials from which we manufacture our safety surfacing and elastic products are subject to constant quality monitoring. The basic materials used in the majority of our products are rubber granules or fibres. In our factory in Bad Berleburg these rubber particles are bonded using the bonding agent polyurethane, compacted and then compressed

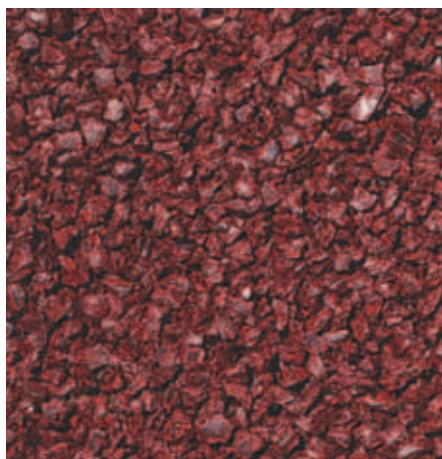
into the familiar Regupol tiles and tracks. The quality of the raw materials and purity of their elemental components, the special ratio of the rubber to the bonding agent, combined with the degree of compacting and subsequent compression are all significant factors which dictate the quality of the end product. Only many years of experience guarantee the

requisite properties that put our products at the top end of the quality scale of comparable products manufactured by other suppliers. In our impact protection products this quality is reflected above all in their reliable impact protection values, their resilience and their durability.



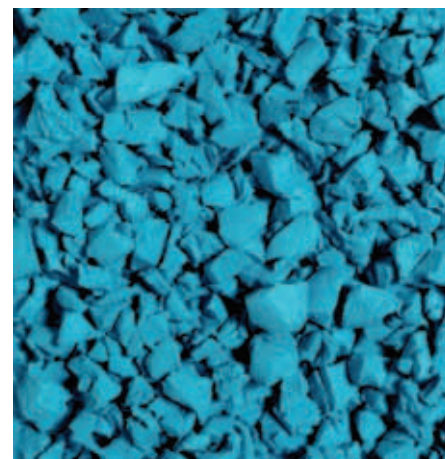
### Rubber fibres

Crucial to our impact protection products are rubber fibres of a particular strength and length which guarantee high resilience and durability. Because the fibres interlock during the mixing process and through subsequent compression form a dense elastic body with excellent resistance to any kind of mechanical influences. This is why our impact protection products boast outstanding stability.



### Rubber granules

The lower-price products within our impact protection range are manufactured from rubber granules. These granules are also used by most other suppliers of similar products.



### EPDM granules

EPDM is synthetic rubber. It has the same functional characteristics as rubber-based granules but is through coloured. We use EPDM granules as decorative surfaces for our impact protection and elastic flooring. Our range comprises 25 colours and their combinations.



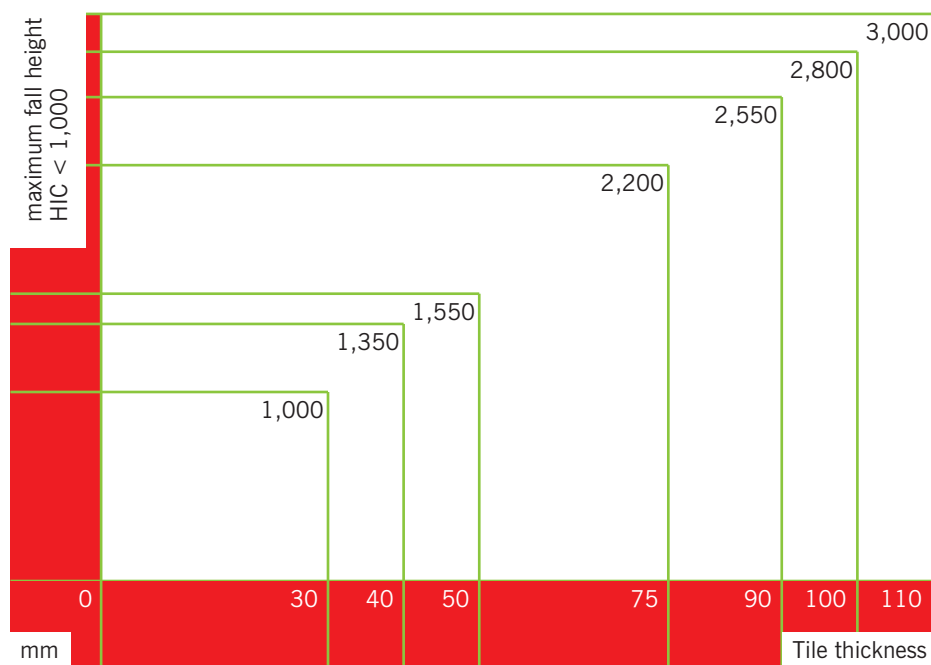
## Tested Safety

The standard DIN EN 1177 defines the procedure for verifying the impact protection properties of a floor and stipulates the limit up to which no serious injuries might be expected upon impact. Regupol impact protection floors are tested in accordance with these standards and meet their requirements.

The value that determines the risk of injury is termed the Head Injury Criterion (HIC). It must not exceed 1,000. The impact protection values of our Regupol impact protection tiles are certified according to TÜV safety standards. In addition our laboratory carries out regular checks to ensure that the quality remains

consistent. At the same time we make sure that our laboratory tests exceed the required values so that potential anomalies don't lead to problems on-site. A point to note: BSW has one of the most modern test facilities in the world.

## Maximum fall heights



The diagram shows the maximum fall height according to DIN EN 1177 in relation to the thickness of our Regupol FX impact protection tiles.



Tests on the Regupol safety tiles relating to impact protection values are regularly carried out in our test laboratory.



# Which is the right safety surface?

Playground safety surfaces made from rubber are a versatile – and in the long-term cost-effective – alternative to loose fill surfaces of sand, mulch, or bark chippings. The economic viability of Regupol safety surfaces in long-term comparison with loose fill materials can be proven if over and above the costs of the

initial purchase and installation, one also considers the ongoing costs for maintenance and upkeep. Because over a period of ten years the expensive maintenance and renewal measures required for loose fill materials generate costs up to two times higher than Regupol impact protection. Even after four

years the initial cost advantage of sand, for instance, has been exhausted, and thereafter the costs increase significantly. The following comparison is based on the assumption that the sand is properly cleaned and maintained.

## Safety tiles or sand – a cost comparison

### Regupol Safety Tiles

**Installation**

100 m<sup>2</sup> safety tiles, accessories, working time, on a prepared surface

costs 1 m<sup>2</sup> = Euro 61.50  
 costs 100 m<sup>2</sup> = Euro 6,150.00

**Maintenance**

Thorough cleaning of 100 m<sup>2</sup> safety tiles with high pressure washer

costs 2 hours / year at Euro 30  
 = Euro 60

### Sand

**Installation**

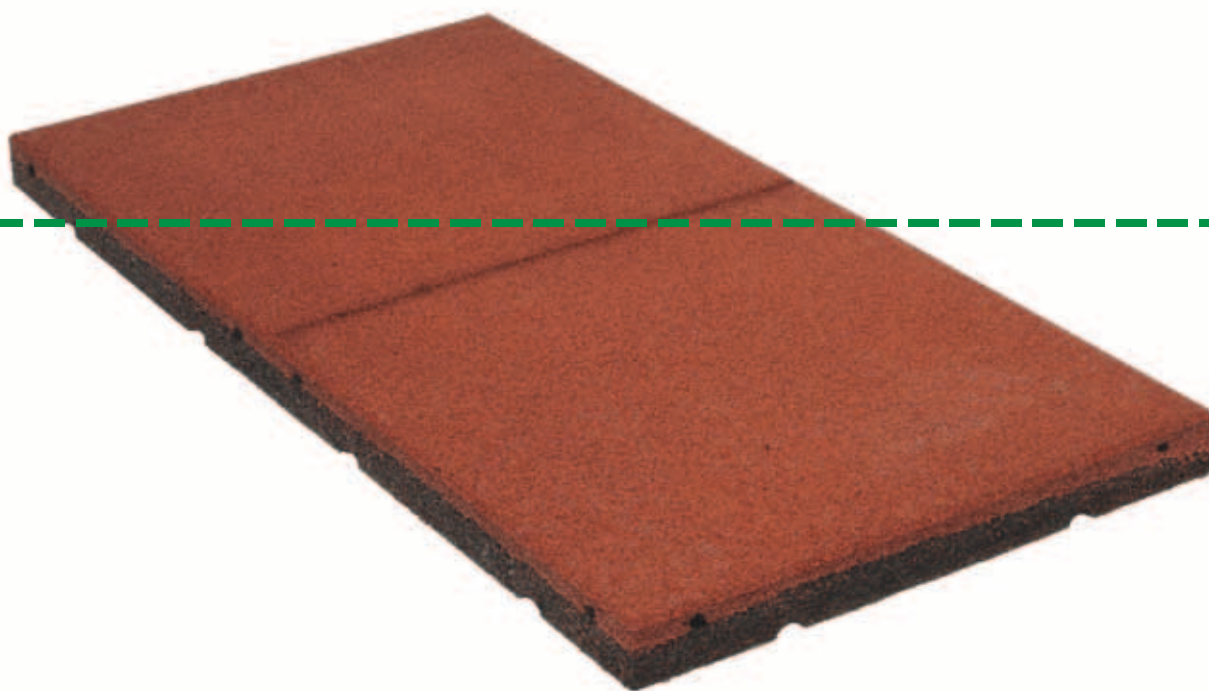
40 m<sup>3</sup> sand on a prepared surface

costs 1 m<sup>2</sup> = Euro 24  
 costs 100 m<sup>2</sup> = Euro 2,400

**Maintenance**

Annual replacement of 10 m<sup>3</sup> sand, annual cleaning of sand, loosening and spreading the surface to maintain the required depth

Cost of changing sand 10 m<sup>3</sup> = Euro 600  
 Cleaning costs Euro 385 calculated at Euro 3.30 / m<sup>2</sup> + travel costs



## Long-term development of costs over 10 years

### Regupol Safety Tiles

Installation costs Euro 6,150 / 10 years  
1 year = Euro 615

Maintenance costs Euro 60 x 10 years  
Euro 600

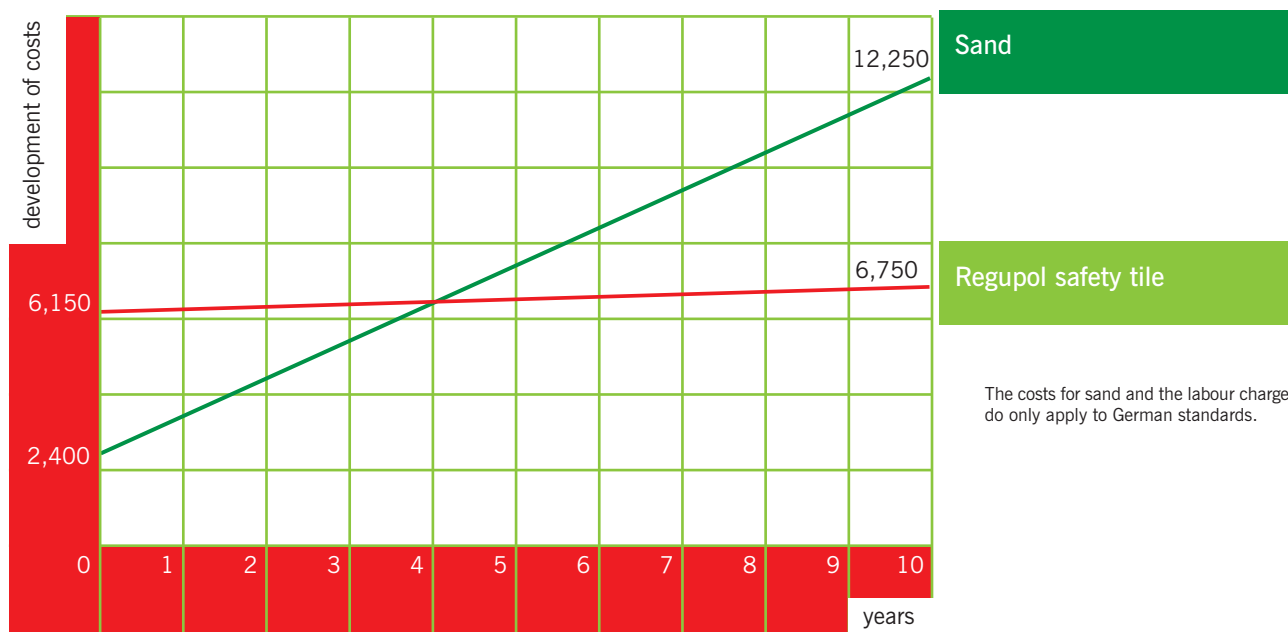
total costs Euro 675 / year

### Sand

Installation costs Euro 2,400 / 10 years  
1 year = Euro 240

maintenance costs Euro 985 x 10 years  
Euro 9,850

total costs Euro 1,225 / Jahr



The costs for sand and the labour charges as listed do only apply to German standards.

The diagram shows the long-term development of costs of Regupol safety flooring compared with sand. By year four the cost of sand exceeds that of Regupol. After ten years the cost has risen to almost double. This is an example calculation that only gives a guideline indication. The individual prices are subject to fluctuation.

# The advantages of Regupol impact protection and elastic products



## Reliable even impact protection, slip resistance

Independently tested and certified impact protection values guarantee the required safety of the whole play area, even in sensitive places. Sand or mulch does not get scuffed

away during play. The structure of the raw material of Regupol reduces the risk of slipping, even on damp surfaces.

## Reasonably priced, economical

Prices graduated according to types of material (rubber fibres, rubber granules, EPDM granules) allow the customer to choose the right quality for every job. In the long-term

Regupol impact protection is up to 50 % cheaper in comparison with loose fill materials.

## Long-lasting, hard-wearing, weatherproof

You can confidently assume a lifetime of ten years for our impact protection and elastic products, frequently they perform their function for even longer – something hardly any other impact protection material can guarantee.

Because Regupol impact protection is extremely hardwearing and resistant to mechanical impact. Plus Regupol impact protection is weatherproof: it is completely impervious to moisture and sunlight, heat or frost.

## Hygienic, low on maintenance, easy to clean

Dirt and rubbish remain clearly visible on Regupol safety surfaces and there's no chance of it getting buried. They can be cleaned quickly and easily, and there's no scope for unpleasant surprises. Loose-fill material won't get trailed

across to other areas or indoors, and you won't end up with sand in shoes or pockets. Regupol safety surfaces are easy to sweep up with a broom, and they appreciate an occasional clean with a pressure washer.

## Sound absorbing

It is generally the use of small sports pitches with hard surfaces such as asphalt and concrete that time and again lead to noise disturbance. The elastic Regupol surfaces

provide effective help against this. They effectively deaden noise from balls, protect joints and bones because of their elasticity and still allow the ball to rebound powerfully.





## Water permeable, quick drying

Even after a heavy downpour it's not long before children can go out to play again on Regupol impact protection and elastic surfaces. This is due to the material's good water

permeability and its quick drying properties. Drainage channels on the bottom of the tiles enable water to drain away quickly.

## Versatile designs and applications

Versatility with regard to applications and designs sets Regupol impact protection apart. Whether safety surfaces on playgrounds, small sports pitches for football or streetball, whether outside or indoor halls. We have the

right solution for every need and can offer 25 colours and their combinations. This allows you to make a design statement or match a surface to its surroundings.

## Environmentally friendly

Our products are mainly manufactured from rubber, do not seal the ground, pose no health risks, and at the end

of their life can be recycled.

## Quick laying, quick removal

Regupol impact protection and elastic floors are quick and easy to lay. Pushfit fittings and adhesive bonding create reliable and durable solidity. If at any stage you decide

that you don't need the surface any more, the Regupol tiles and moulded parts are easy to remove.

## Comprehensive pre- and aftersales service

Personal consultation, individual production of material samples, special solutions, maintenance and extensions,

and last but not least prompt and reliable delivery, as well as lots of other services, are all in a day's work.

# Regupol Impact protection tile FX



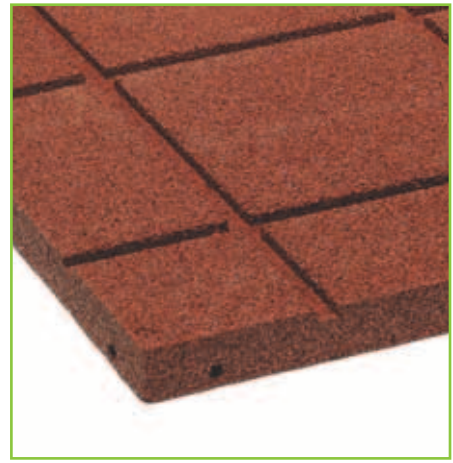
The Regupol impact protection tile FX, in redbrown, is the best-selling product in BSW's impact protection range. Universally usable, reliable and resilient, Regupol FX is suitable for fall heights up to three metres. Due to its unique structure of rubber fibres and dual layer construction, Regupol FX guarantees the

highest possible safety standard and longest lifetime of all the impact protection products. The coloured wear layer is manufactured from highly compacted rubber fibres, ensuring durability, slip-resistance and even, reliable force absorption. The underlying elastic layer guarantees the exact impact protection values

as the softer material possesses the required elasticity. Very few suppliers offer this dual layer construction, which involves an expensive production process. It is a definitive quality characteristic.



The cross-section through the tile shows the dual-layer construction.



There are drainage channels on the underside of our impact protection and elastic tiles.

Dimensions (mm)	Weight (kg / m <sup>2</sup> )	maximum fall height (m)
1,000 x 500 x 30	approx. 24	1.00
1,000 x 500 x 40	approx. 24	1.35
1,000 x 500 x 50	approx. 29	1.55
1,000 x 500 x 75	approx. 39	2.20
1,000 x 500 x 90	approx. 46	2.55
1,000 x 500 x 100	approx. 51	2.80
1,000 x 500 x 110	approx. 56	3.00

**Tolerances:** Length / Width +/- 1 %  
Thickness +/- 2 mm

**Material construction:** PUR-bonded rubber fibres, through coloured

**Colours:** Base layer black, wear layer redbrown, green, black, other colours on request.

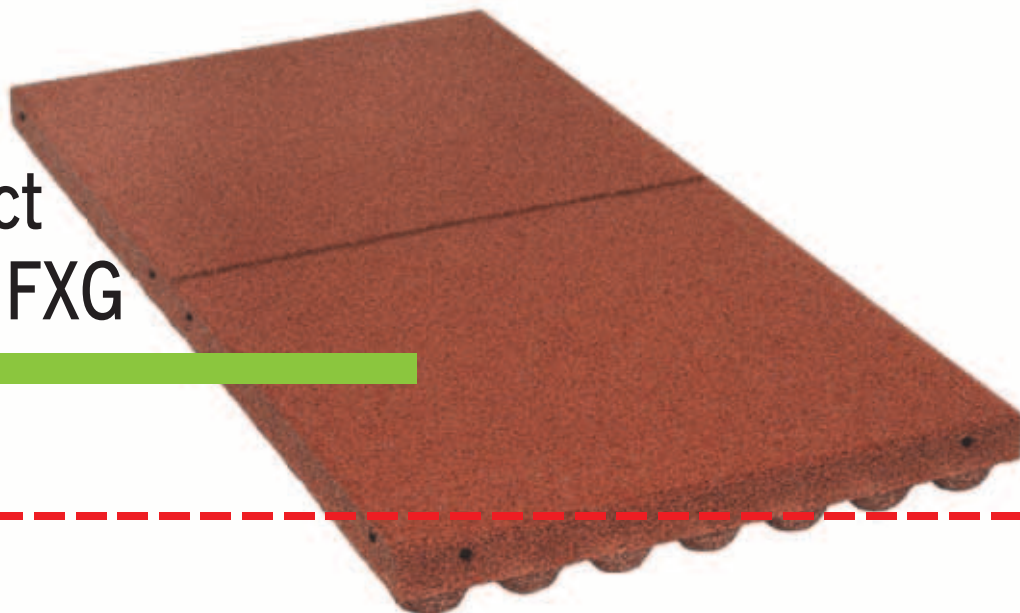
**Installation:** on concrete, asphalt or compressed bed of crushed gravel

**Structure:** dual layer construction with compressed, highly resilient wear layer and soft base layer guaranteeing impact protection; drainage channels on underside, dowel holes on edges, dummy joint on the top side with 500 mm

**Applications:** children's playgrounds, outdoor pools, schoolyards etc. Everywhere where there is an increased risk of injury through falling.

Laying instructions see page 32.

# Regupol Impact protection tile FXG



Regupol FXG is the lower cost version of our impact protection tiles. With reliable impact protection properties, the material composition is simpler. As it is made from rubber granules and constructed in one layer, it does not have the same toughness or resilience as our

Regupol FX tiles. However its durability will stand up to normal stress. It has already proved itself time and again. Regupol FXG is a successful compromise between durability and cost efficiency. The maximum fall height of Regupol FXG is two metres. Greater fall

heights with single-layer tiles can only be achieved if you compromise on durability.



The cross section shows the homogeneous granular structure.



The dimples on the under side provide for elasticity and drainage.

Dimensions (mm)	Weight (kg / m <sup>2</sup> )	maximum fall height (m)
1,000 x 500 x 50	approx. 34	1.50
1,000 x 500 x 70	approx. 46	2.00

Tolerances:	Lenght / Width	+/- 1 %
	Thickness	+/- 2 mm

**Material construction:** PUR-bonded rubber granulate, through coloured

**Structure:** single layer construction from homogeneous material; underside with dimples for drainage and elasticity, dowel holes at edges, dummy joint on the top side with 500 mm

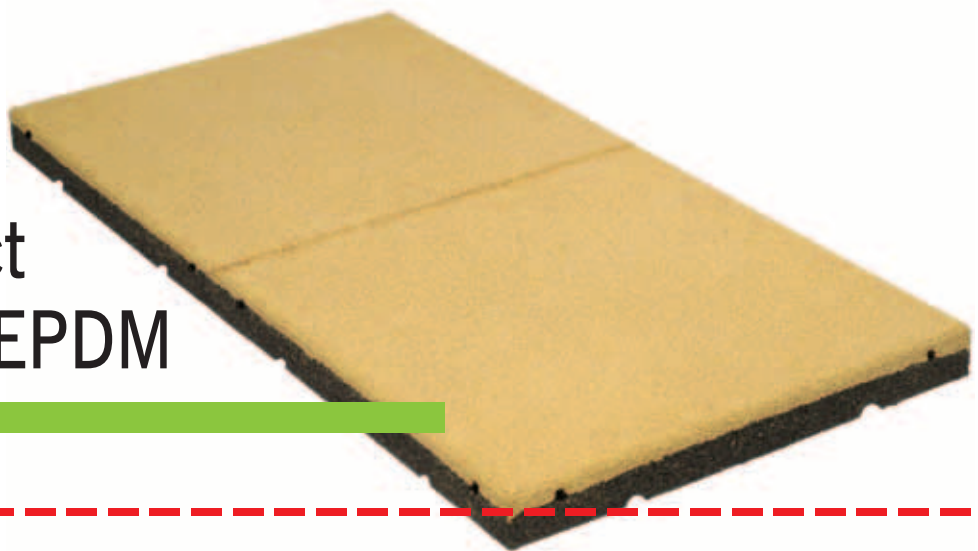
**Colours:** redbrown, green, black, other colours on request.

**Applications:** children's playgrounds, outdoor pools, schoolyards etc. Everywhere where there is an increased risk of injury through falling.

**Installation:** on concrete, asphalt or compressed bed of crushed gravel

Instructions for laying see page 32.

# Regupol Impact protection tile EPDM



Our Regupol EPDM impact protection tiles combine reliable functionality with a high-quality appearance. Their impact protection values are equivalent to those of our Regupol

FX safety tiles. The Regupol EPDM safety tile is available in 25 colours (colour chart on page 17). Exposure of the material to sunlight results in minimal fading of the colours as the

tiles are manufactured using a special process.\* The EPDM wear layer is characterised by high wear resistance, so there is no colour deterioration when subjected to intensive use.



The cross-section through the tile shows the dual-layer construction with the through coloured EPDM layer.

Dimensions (mm)	Weight (kg / m <sup>2</sup> )	maximum fall height (m)
1,000 x 500 x 30	approx. 24	1.00
1,000 x 500 x 40	approx. 29	1.35
1,000 x 500 x 50	approx. 35	1.55
1,000 x 500 x 75	approx. 46	2.20
1,000 x 500 x 90	approx. 50	2.55
1,000 x 500 x 100	approx. 56	2.80
1,000 x 500 x 110	approx. 61	3.00

**Tolerances:** Length / Width +/- 1 %  
Thickness +/- 2 mm

**\* Note regarding freshly laid tiles:** When EPDM tiles have just been laid, there may be slight temporary wax colouring, which will disappear as they weather. The wax is used in the manufacturing process and once it has disappeared the true colours will come through in their full intensity.

**Material construction:** PUR-bonded rubber fibres, coloured EPDM granules, PUR-bonded

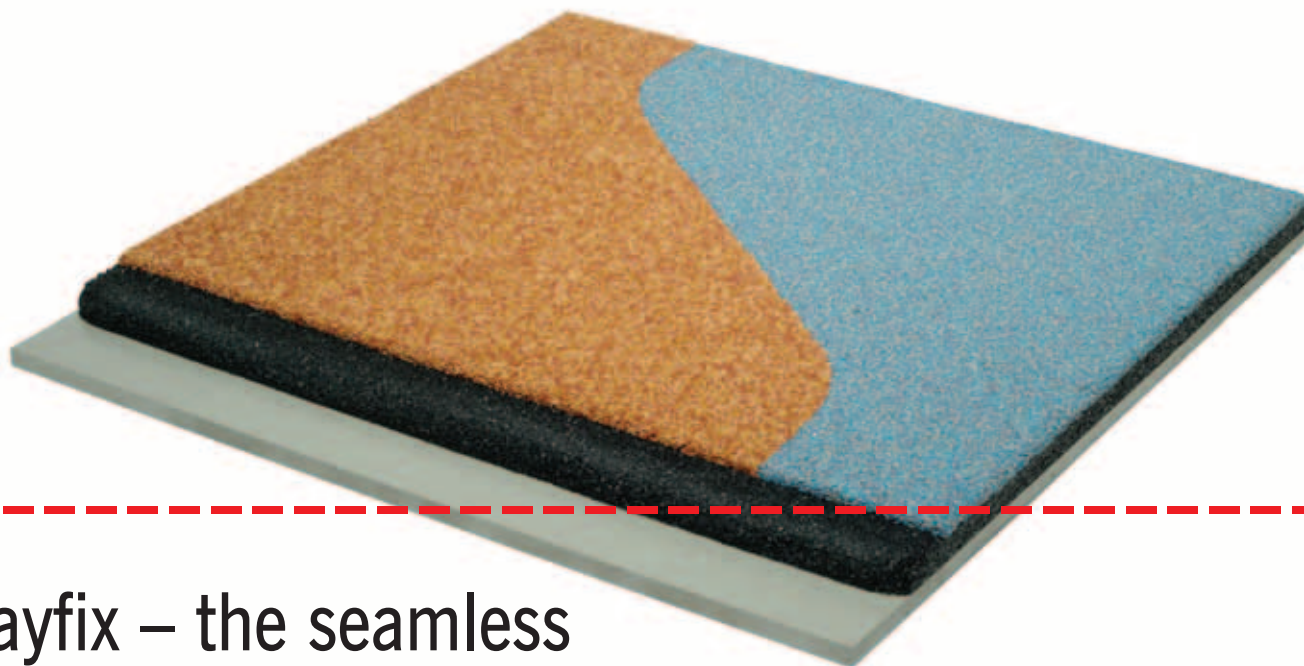
**Colours:** selection of 25 colours; details on page 17.

**Installation:** on concrete, asphalt or compressed bed of crushed gravel

**Structure:** dual-layer construction with approx. 11 mm thick compressed, highly resilient EPDM wear layer and soft base layer guaranteed to cushion falls; underside with drainage channels, dowel holes at edges, dummy joint on the upper side at 500 mm

**Applications:** children's playgrounds, outdoor pools, schoolyards etc. Everywhere where there is an increased risk of injury through falling.

Instructions for laying see page 32.

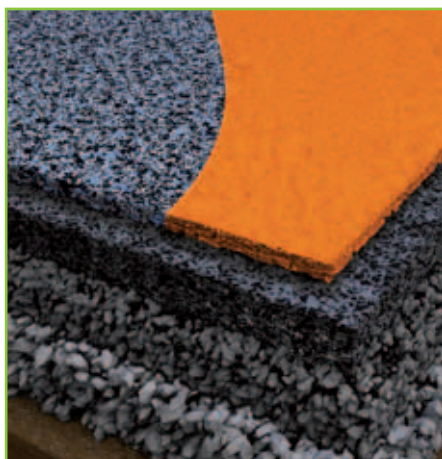


## Playfix – the seamless floor covering for impact protection

Playfix is the seamless floor covering for impact protection, applied in situ in semi-liquid state. Its versatility is as unsurpassed as the design scope it offers. Playfix safety flooring can be applied to smooth, curved or slanting surfaces

to create diversified play environments. Playfix adjusts to the tiniest uneven patches, creating a smooth, seamless safety surface. Playfix is also ideal for retrofitting because it adapts seamlessly to the anchoring devices of

playground equipment. Thanks to its water permeability, Playfix can be used again quickly after it has rained. It goes without saying that Playfix complies with standard EN 1177 impact absorbing playground surfacing.



### The structure

- 1) EPDM top layer
- 2) Basic layer with precisely adjustable falling protection height
- 3) Crushed stone bed as per DIN 18035-6
- 4) Gravel as per DIN 18035-6
- 5) Natural substrate

Thickness (mm)	maximum fall height (m)
20 + 10	1.20
30 + 10	1.50
40 + 10	1.80
65 + 10	2.20
80 + 10	2.50
90 + 10	3.00

**Material:** through coloured EPDM wear layer, base layer PUR-bonded rubber fibres granules

**Structure:** dual-layer construction of wear layer and elastic safety layer

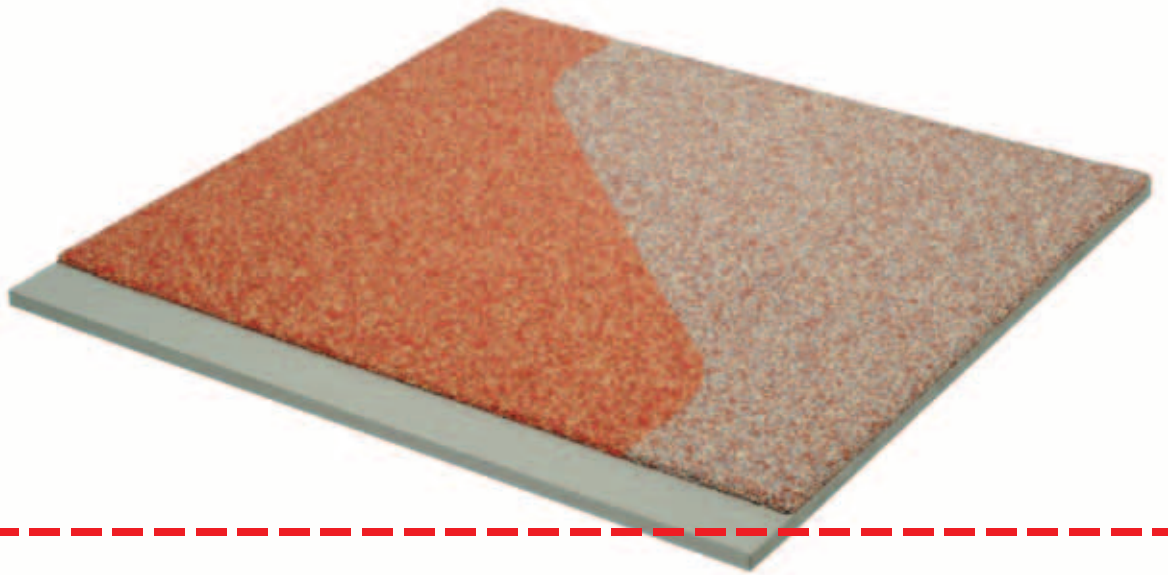
**Elastic layer:** thickness 10 – 30 mm  
**Safety layer:** thickness 20 – 90 mm

**Applications:** children's playgrounds, outdoor pools, schoolyards etc. Everywhere where there is an increased risk of injury through falling.

**Installation:** on concrete, asphalt or compressed bed of crushed gravel. Installation by BSW technicians.

Notes on installation see page 36.

**Colours:** 25 colours and their combinations

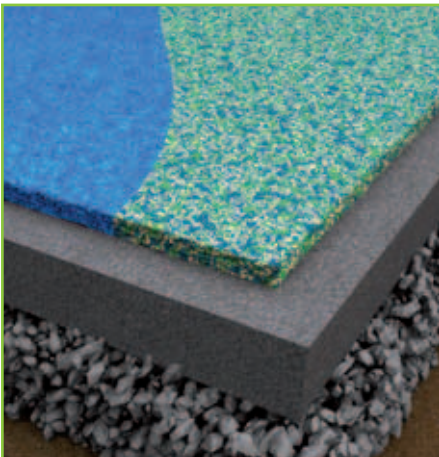


# Playfix EPDM IS

The seamless elastic effective surface as visual addition to Playfix safety flooring is called Playfix EPDM IS. It has the same surface (top layer) but manages without the lower basic

layer. Playfix EPDM IS therefore does not fulfil impact protection requirements but acts as a visual addition to impact protection surfaces, for example on secondary areas of playgrounds

and wherever aesthetically designed, resilient outdoor surfaces are required.



### The structure

- 1) EPDM top layer
- 2) Concrete or asphalt as per DIN 18035-6
- 3) Gravel as per DIN 18035-6
- 4) Natural substrate

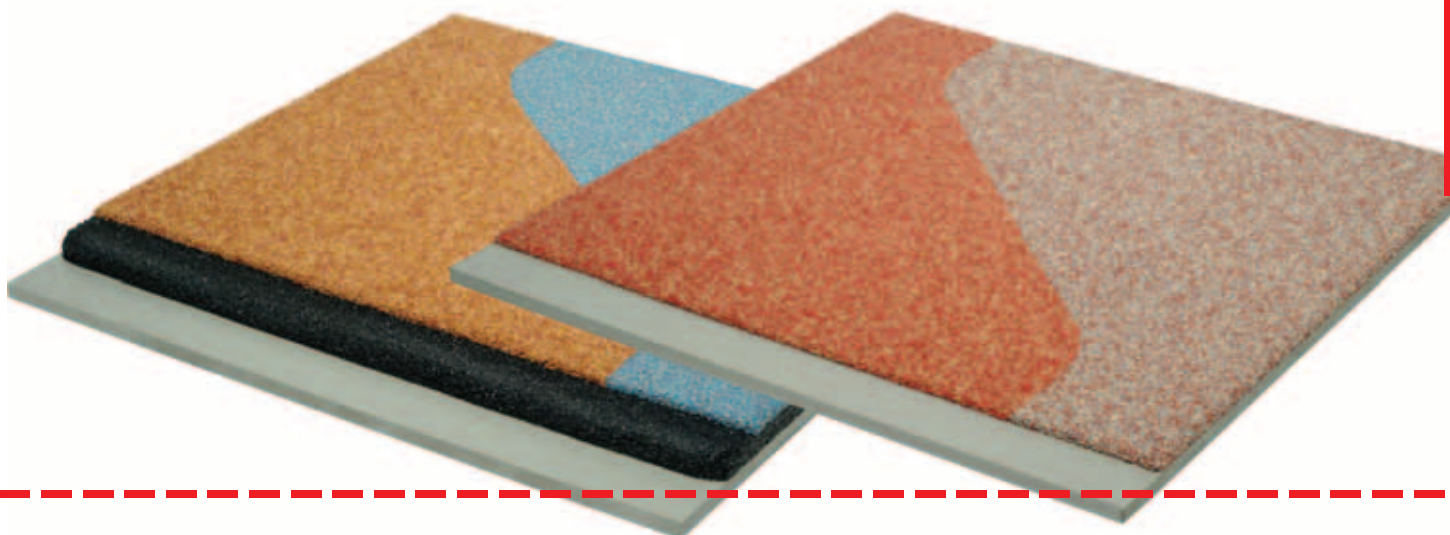
**Material:** through coloured EPDM

**Structure:** Single-layer structure

**Applications:** On secondary areas in playgrounds, for example under seats, table tennis tables, for covering slanting and protruding surface, for patios.

**Installation:** On concrete or asphalt. Installation by BSW technicians. Notes on installation see page 36.

**Colours:** 25 colours and their combinations

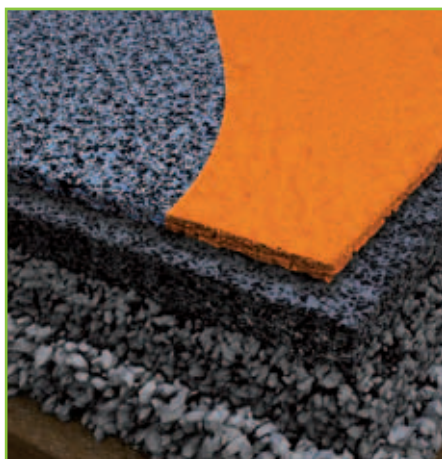


# Playfix Aqua

Playfix Aqua has been specially developed for use in wet areas, and does not emit any

harmful substances to chlorinated swimming pool water. Playfix Aqua is available both with

or without impact protection properties, and in 25 colours and their combination.



## The structure (without falling protection)

- 1) EPDM top layer
- 2) Concrete or asphalt as per DIN 18035-6
- 3) Crushed stone bed as per DIN 18035-6
- 4) Natural substrate

## The structure (with falling protection)

- 1) EPDM top layer
- 2) Basic layer PUR-bonded rubber granulate
- 3) Crushed stone bed as per DIN 18035-6
- 4) Gravel as per DIN 18035-6
- 5) Natural substrate

**Material:** through coloured EPDM wear layer, base layer PUR-bonded rubber fibres granules (only Playfix Aqua with falling protection)

**Structure:** Playfix with falling protection properties: two-layer structure: top and basic layer  
Playfix without falling properties: one-layer structure: top layer

**Applications:** On falling protection and secondary areas in outdoor swimming pools, as border edging for swimming baths, in water play landscapes, in and around children's pools.

**Installation:** On concrete or asphalt. Installation by BSW technicians.  
Notes on installation see page 36.

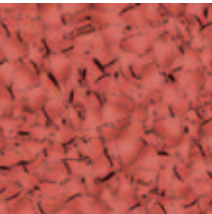
**Colours:** 25 colours and their combinations

# Examples of Playfix patterns

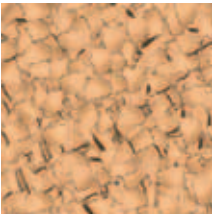
Based on six basic colours we have created 24 colour patterns which are perfect for combining with each other. The basic colours are brick red, beige, light grey, pigeon blue,

capri blue and signal green. These basic colours and the first example in each row are almost identical to the patterns in our Everroll interior floor covering range. Everroll is also

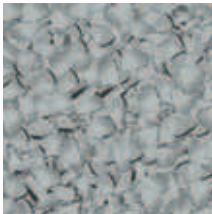
made from EPDM granules so the visual impression is also identical. This means that you can create co-ordinating floor surfaces inside and out



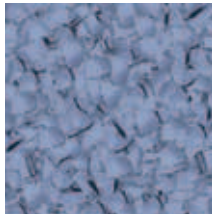
Brick red



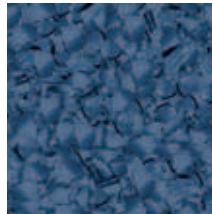
Beige



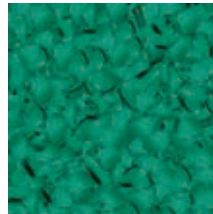
Light grey



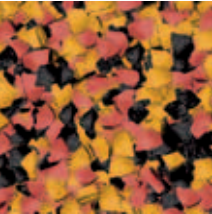
Pigeon blue



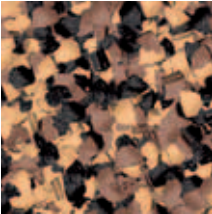
Capri blue



Signal green



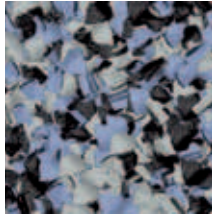
Brick red, earth yellow, black



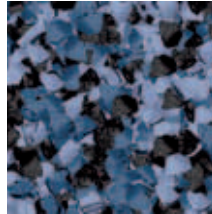
Beige, brown, black



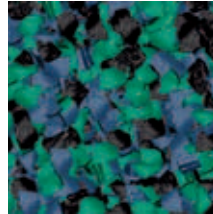
Light grey, eggshell, black



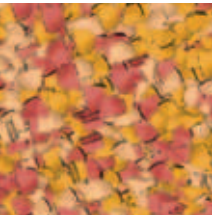
Pigeon blue, light grey, black



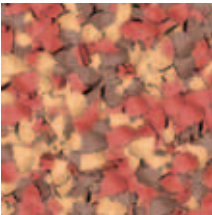
Capri blue, pigeon blue, black



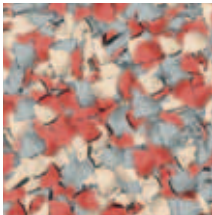
Signal green, capri blue, black



Brick red, earth yellow, beige



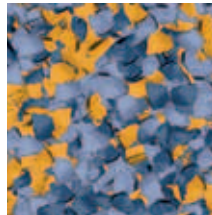
Beige, brown, brick red



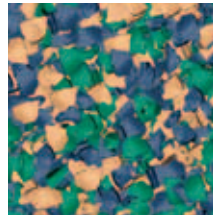
Light grey, eggshell, brickred



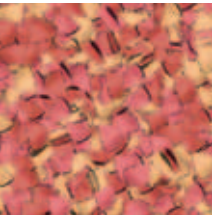
Pigeon blue, light grey, teal



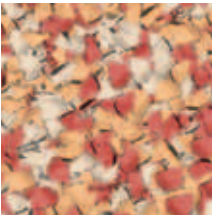
Capri blue, pigeon blue, earth yellow



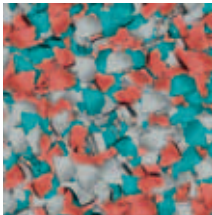
Signal green, capri blue, beige



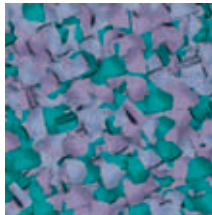
Brick red, beige, pink



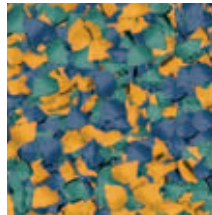
Beige, brick red, eggshell



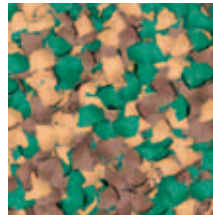
Light grey, brick red, turquoise



Pigeon blue, teal, violet



Capri blue, earth yellow, patina green



Signal green, beige, brown

The colours shown differ slightly from the originals due to the nature of the printing process. Please select your colour based upon an actual sample. Colours may vary slightly from one batch to another.

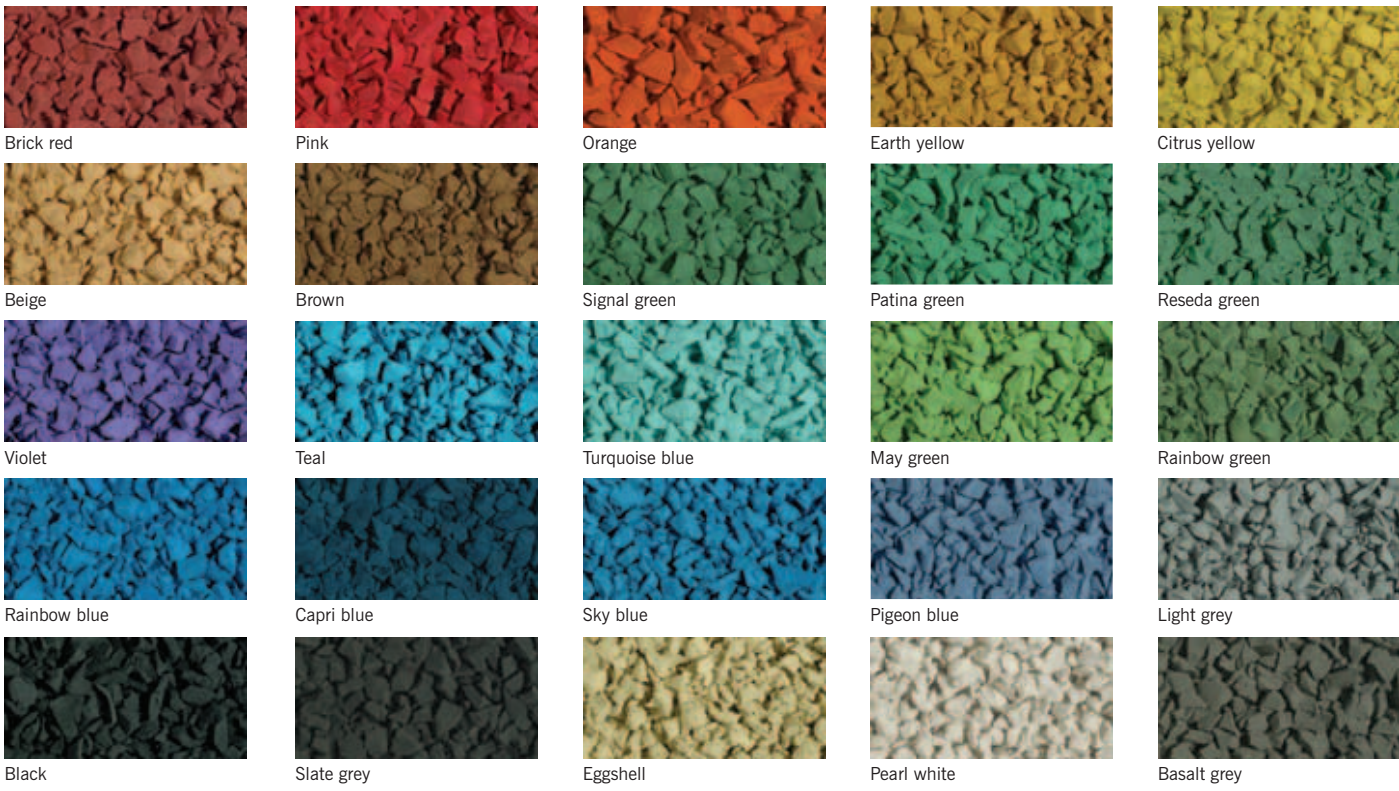
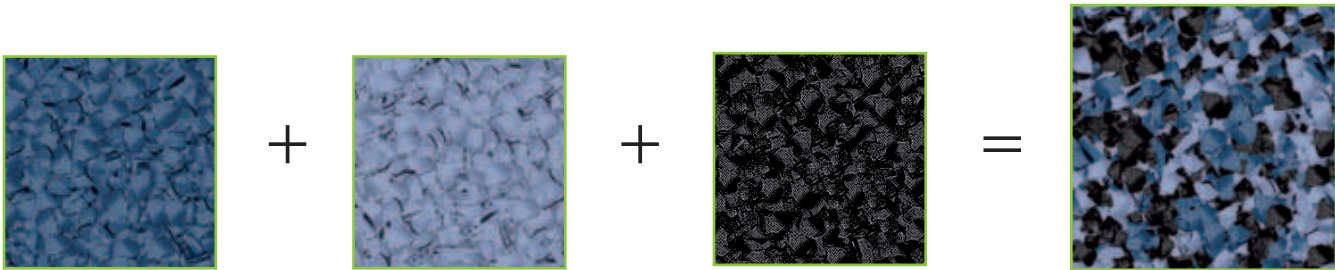


# Create your own Playfix design

Choose your own colour or mixture of colours from 25 coloured granules. Send us your design and we'll make up a sample for you, or send your choice of coloured granules for

you to have a look at. If you're happy with your selection, all you need to do is place your order with us and we'll come and install your personalised Playfix safety surface or manu-

facture your special Regupol EPDM impact protection surface.



The colours shown differ slightly from the originals due to the nature of the printing process. Please select your colour based upon an actual sample. Colours may vary slightly from one batch to another.

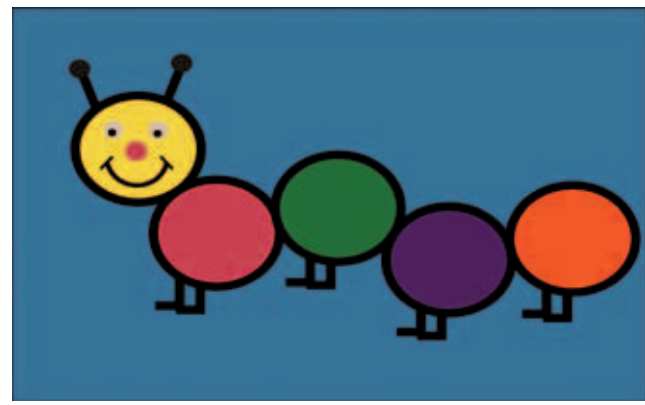
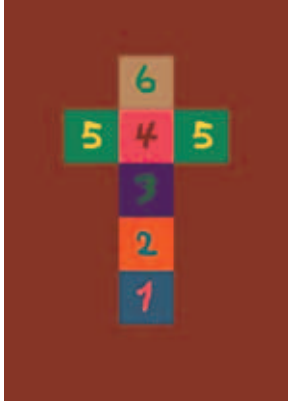
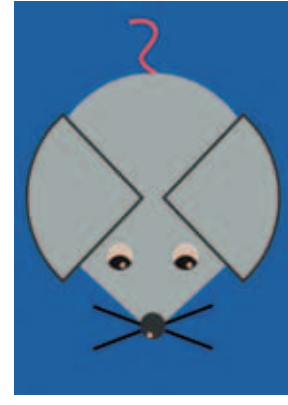
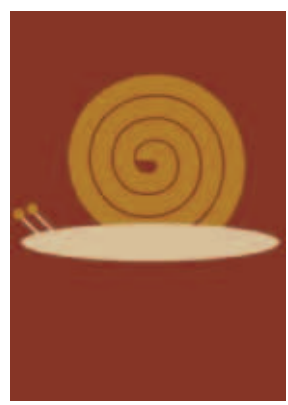
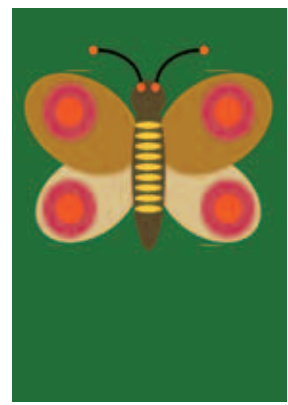


# Shapes and motifs

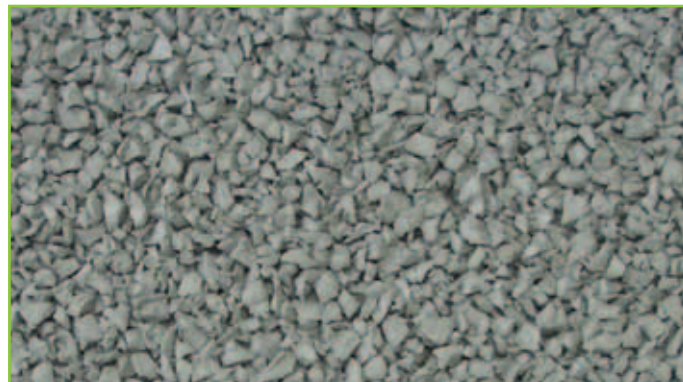
Are colours on their own not enough? We also offer you the possibility of giving your safety flooring a unique, individual design with

geometric or figurative motifs. In order to create 3D effects, Playfix safety flooring can also be installed over embankments, hills

and valleys. Application is possible to slopes of up to 45°. Here are a few examples.



# Quality



The influence of UV irradiation can cause a discolouring of the micrometre thin adhesive layer on the top of diverse solid-coloured EPDM granulates.

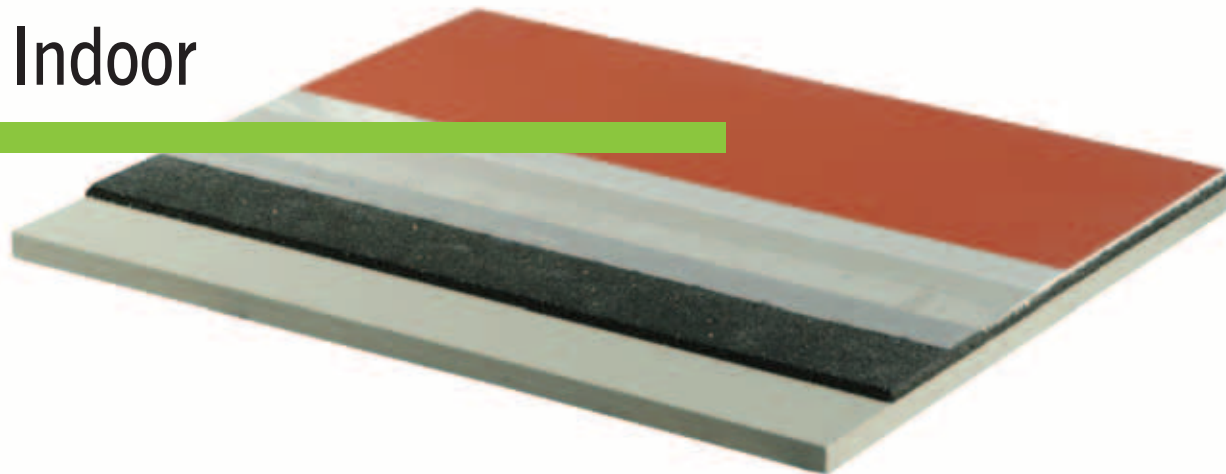
This effect may give for example blue EPDM granulate a greenish look or light grey EPDM granulate can discolour brownish. As a result the discoloured adhesive layer almost completely wears off in the course of the first weeks or months in case of a normal use.

In order to avoid this temporary discolouring it is possible to use an almost complete UV-resistant adhesive. This method prevents the adhesive layer nearly complete from discolouring and the colours shine "crystal clear". We recommend the utilisation of UV-resistant adhesive for the application of the following EPDM colours: blue, violet, orange, yellow, eggshell, pearl white, light grey, etc.



These cross section pictures show an essential difference. While the EPDM top layer in Playfix safety flooring (left picture) is on average 10 mm thick, the top layer in safety flooring systems by other manufacturers (right picture) is only about half as thick. This is one of the essential advantages of Playfix: the thick, highly compacted top layer by Playfix warrants a far longer service life and durability.

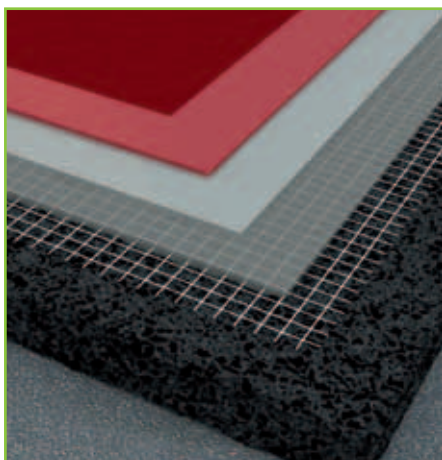
# Playfix Indoor



Indoor play areas are becoming increasingly popular. However, conventional safety flooring is designed for outdoor surfaces, and their porous surface structure is not suitable for indoor cleaning methods. With Playfix Indoor BSW has developed a floor covering that fulfils

all impact protection requirements and also has a homogeneous, easy-to-clean wear layer. Playfix Indoor consists of soft sheets, which are sealed with a liquid, quick hardening PUR surface. As the surface was developed on the basis of our flooring range for sports hall floors,

it is extremely robust and durable, besides being slip resistant and available in a wide range of colours. It is easy to add writing, lines and symbols using our equally durable PUR paint.



## The structure

- 1) PUR colour finish
- 2) Sealing layer
- 3) Fabric mesh
- 4) Elastic layer, PUR-bonded rubber granulate
- 5) Cement or asphalt screed

Playfix Indoor is the perfect complement to our Regugym point- and combi-elastic floor surfaces for halls, because both kinds of flooring have the same wear layer, so if you select the same colour they are virtually indistinguishable from each other. This gives you the flexibility to floor multifunctional halls in a uniform design, despite the floor surfaces having different functions. Ask us about our hall floors and we'll be happy to advise you.

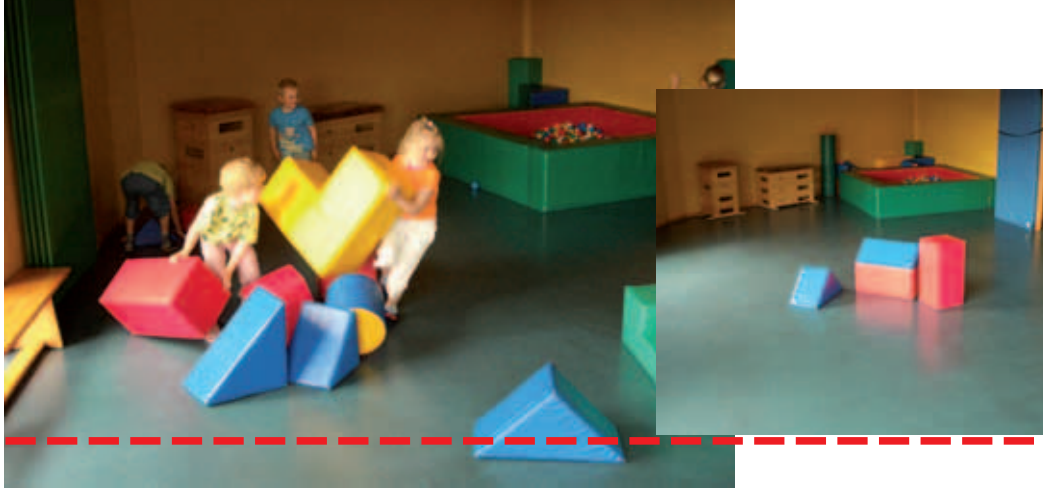
**Material:** Wear layer hardened coloured polyurethane applied in liquid state, elastic layer PUR-bonded rubber granulate

**Structure:** multi-layer construction from elastic layer, fabric mesh, sealant and colour finish, wear layer sealed and seamless

**Applications:** on all indoor play areas and all interior surfaces where there is increased risk of injury from falling.

**Colours:** 17 colours

**Total thickness:** 10-110 mm



## Playfix Indoor – the colours

Besides being functional, the priority for interior floor coverings is to look good. Playfix Indoor gives you a choice of 17 colours. Our technicians can also lay multi-coloured surfaces.

The colour quality of Playfix Indoor remains stable over a long period of time and is not affected by heavy use or the effects of sunlight. However should your floor surface need

renovation after many years' service, we can replace the wear layer at a reasonable price without having to remove the whole flooring system.



Azure blue



Capri blue



Pastel blue



Steel blue



Pigeon blue



Mint turquoise



Dust grey



Stone grey



Iron grey



Olive green



Oxide green



May green



Reseda green



Sand beige



Ochre yellow



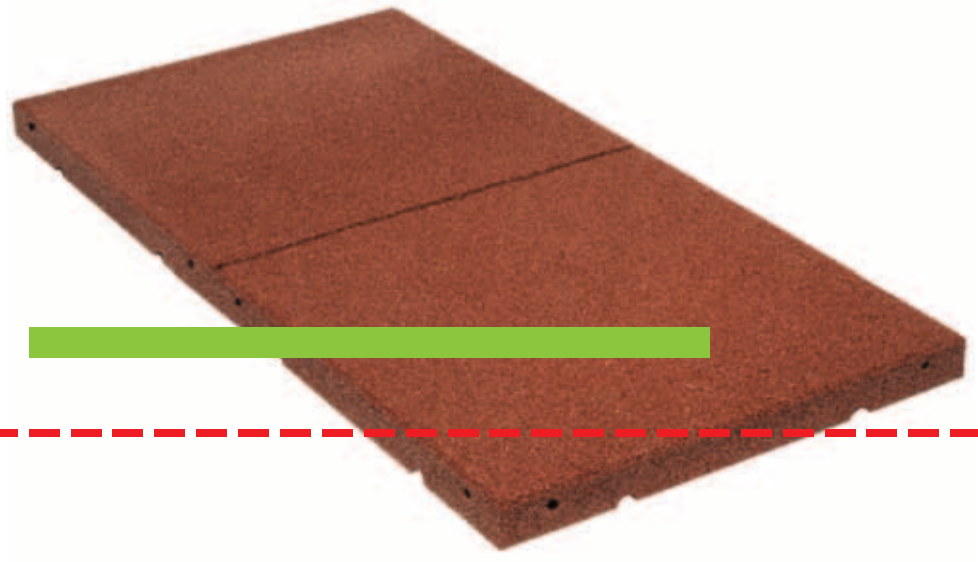
Oxide red



Autumn brown

The colours shown differ slightly from the originals due to the nature of the printing process. Please select your colour based upon an actual sample. Colours may vary slightly from one batch to another.

# Regupol Elastic tile E



Identical to the FX safety tiles as regards material composition, shape and colour, Regupol elastic tiles have the same high quality without the tested impact protection characteristics. They are the perfect flooring surface for football or street ball pitches, table tennis courts and lots more. With good ball

rebound characteristics Regupol elastic tiles significantly reduce noise from bouncing and are robust and durable. Regupol elastic tiles are available in two sizes: 1,000 x 500 mm and 2,000 x 1,000 mm. The larger of our elastic tiles are ideally suited for laying on an unbound base course. They reduce any surface

irregularities that can result from the settling associated with heavy use. Lines, writing, symbols and pictures are easy to apply using our permanently stable PUR paints. Elastic tiles made from a cheaper granulate material are also available (Regupol EG).



Artificial dowels are an optional feature of our impact protection and elastic tiles. They are used to fix the tiles to each other.

Dimensions (mm)	Weight (kg / m <sup>2</sup> )
2,000 x 1,000 x 43	approx. 35
1,000 x 500 x 43	approx. 35
1,000 x 500 x 30	approx. 24
1,000 x 500 x 22	approx. 18
1,000 x 500 x 15	approx. 12

<b>Tolerances:</b>	Length / Width +/- 1 %
	Thickness +/- 2 mm

**Material:** PUR-bonded rubber fibres or rubber granulate, through coloured

**Installation:** single-layer construction of compressed, highly resilient material. Underside with drainage and cable channels, dowel holes on sides, dummy joint on upper surface with 500 mm (only tile size 1,000 x 500 mm)

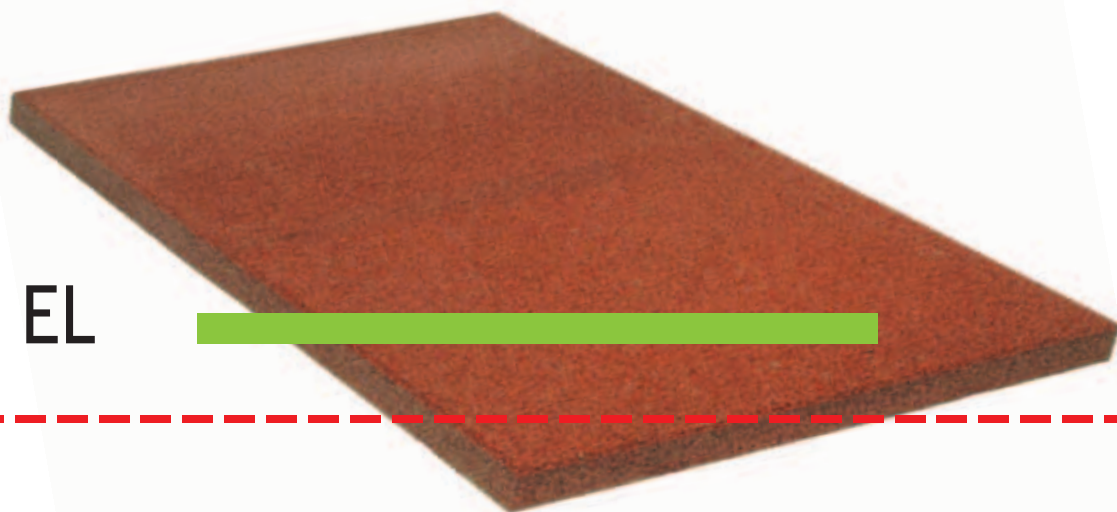
**Colours:** redbrown, green, black, other colours on request.

**Applications:** small play areas, streetball pitches, various sport and leisure areas

**Installation:** on concrete, asphalt or compressed stones; 15 and 22 mm only to be bonded to concrete or asphalt.

Laying instructions see page 32.

# Regupol Elastic tile EL



Regupol EL is the large format elastic tile. Regupol EL combines a high quality appearance with reliable elasticity and phenomenal durability. Besides its appearance its fundamental advantage is that it can be laid on all

level surfaces without the need to make a special base layer first. The surface is easy to clean. The Regupol EL elastic tile is primarily designed for use under swings and slide run-offs, preventing the formation of depressions

that increase the risk of accidents and attract an accumulation of dirt. However you can also use them to create large elastic surfaces, both inside and out.



The cross-section through the tile shows the homogeneous construction of the compressed material.

**Dimensions**  
(mm)

2,000 x 1,000 x 43

**Weight**  
(kg / m<sup>2</sup>)

approx. 35

**Tolerances:**

Length / Width +/- 1 %  
Thickness +/- 2 mm

**Material:** PUR-bonded rubber fibres or rubber granulate, through coloured

**Structure:** single-layer construction of compressed, highly resilient material

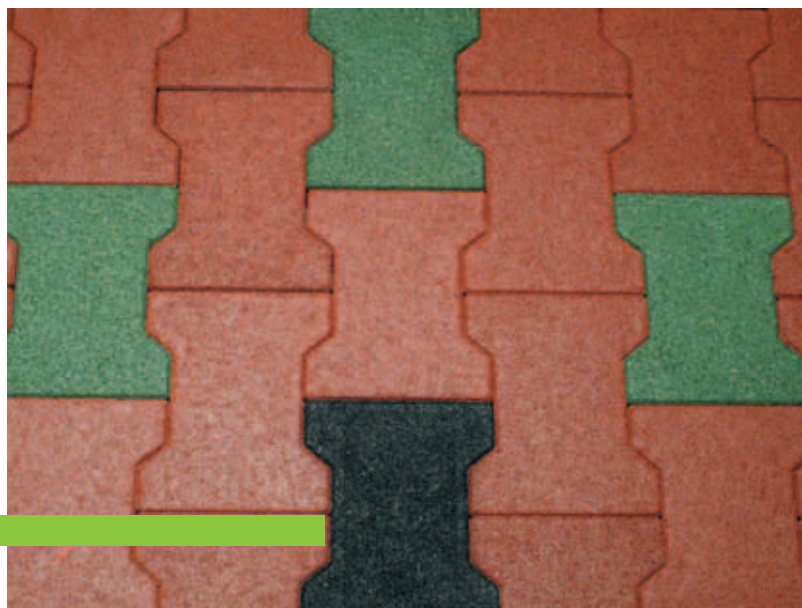
**Colours:** Redbrown, other colours on request

**Applications:** under swings and slide run-offs, all small areas subject to heavy wear, decorative large areas

**Installation:** on concrete, asphalt or compacted stone or simply on an even surface

Laying instructions see page 32.

# Regupol Interlocking pavers VB



The particular benefit of surfaces constructed from the durable, elastic interlocking pavers is their versatility. Because Regupol interlocking paving is always the best choice where walking and playing comfort, reduced stress on joints,

spike resistance, sound absorption and frost resistance are required. Regupol interlocking pavers combine perfectly with Behaton interlocking paving and are laid in exactly the same way. The ball rebound characteristics

of Regupol interlocking pavers are as good as those of Regupol elastic tiles. They are also available in rubber fibre construction or in cheaper granulate (Regupol VBG) and are supplied in various colours.



The Regupol interlocking pavers are exactly the same shape as Behaton interlocking paving stone.



The range also includes "starters" for creating straight edges.



"Half pavers" complete our range.

**Material:** rubber fibres or rubber granulate, PUR-bonded, through coloured

**Structure:** single-layer structure of homogeneous material, "double T shapes", "starters" and "half pavers" also available

**Colours:** redbrown, green, black.

**Applications:** on small play areas, all elastic surfaces for sport and leisure, corridors in clinics and rehabilitation centres, golf courses, walk ways at ice rinks and many more

**Installation:** on concrete or asphalt

Laying instructions see pages 34, 35.

Dimensions (mm)	Weight (kg / m <sup>2</sup> ) (fibres)	Weight (kg / m <sup>2</sup> ) (granulate)
200 x 160 x 43	app. 37	app. 39
200 x 160 x 21	app. 18.5	app. 19.5



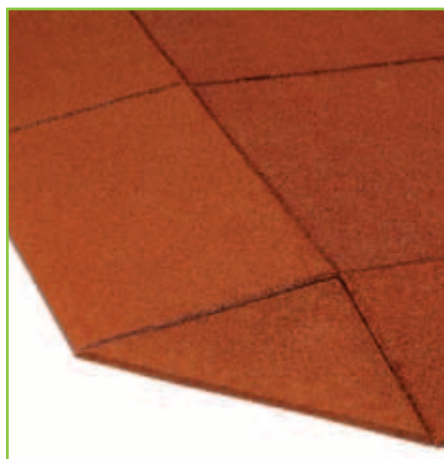
# Regupol Anti-stumble safety edging



Regupol anti-stumble edging is used to create a safe edge to areas fitted with impact protection or elastic tiles. Their bevelled edge prevents any stumbling accidents at the edge

of the safety surface. The edging is available in different heights which correspond to the various heights of our tiles. The anti-stumble edging also helps in the construction of

accessible playgrounds. Besides the rubber-based edging, anti-stumble edging is also available in EPDM in our full range of colours.



Regupol anti-stumble edges and corner pieces match the various heights of the tiles exactly.

Dimensions (mm)	Weight (kg / piece)
Anti-stumble safety edging	
1,000 x 250 x 30/8	approx. 4
1,000 x 250 x 40/8	approx. 5
1,000 x 250 x 43/8	approx. 5
1,000 x 250 x 50/8	approx. 6
1,000 x 300 x 60/8	approx. 8.5
1,000 x 300 x 75/8	approx. 10.5
1,000 x 300 x 90/8	approx. 12.5
1,000 x 300 x 100/8	approx. 13.5
1,000 x 300 x 110/8	approx. 14.5

#### Triangular corner pieces

250 x 250 x 30/8	approx. 0.4
250 x 250 x 40/8	approx. 0.5
250 x 250 x 50/8	approx. 0.6

**Material:** PUR-bonded rubber fibres, dyed or PUR-bonded through coloured EPDM granulate

**Colours:** Rubber fibres in redbrown, green, black. EPDM granulate available in lots of colours (see page 17).

**Applications:** Enclosure of impact protection surfaces, providing a bevelled edge to other surfaces and shallow steps for preventing accidents, and as a wheelchair ramp.

**Installation:** Like Regupol impact protection and elastic tiles, can only be laid on bound surface

Laying instructions see page 32.

# Regupol Edging



Elastic edging should be used instead of concrete kerbs anywhere where there is a risk of falling and injuries. Besides its elastic properties Regupol edging has other character-

istics to help to prevent injuries: it can be cut and bent to ensure a smooth surface at corners and bends. Despite its elasticity it is stable enough to form a sturdy enclosure and can

be bedded into a concrete base. It provides an ideal edging material for play and sports surfaces and can be used to safely segregate different surfaces made from different materials.



The longitudinal grooves ensure secure mounting in the concrete base.



Identical in material and colour Regupol edging provides the perfect border for impact protection and play areas.

**Material:** rubber fibres, PUR-bonded, through coloured

**Product characteristics:** longitudinal grooves on one side for secure mounting in a concrete base

**Colours:** redbrown, green, black.

**Applications:** as edging for play areas, lawns, sand pits, beach volleyball courts, artificial turf pitches, small pitches, paths, etc.

**Installation:** in ready-mixed concrete wedge

Installation instructions see page 37.

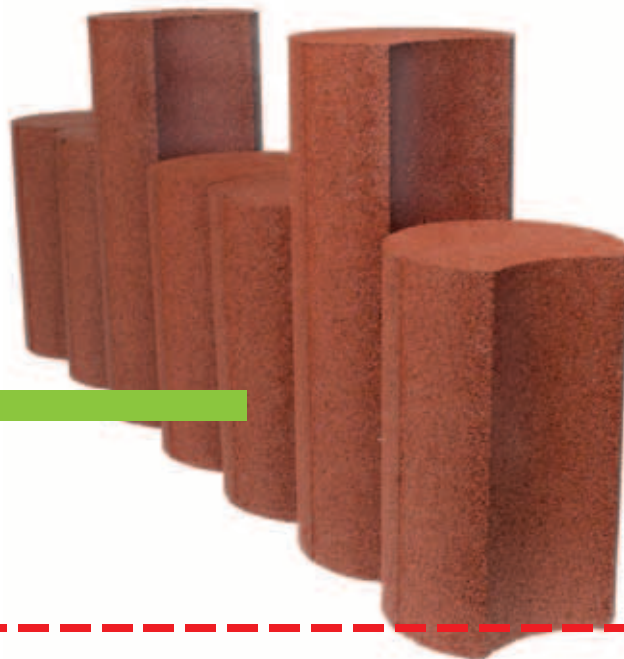
**Dimensions (mm)**

1,000 x 250 x 50

**Weight (kg / piece)**

approx. 10 kg

# Regupol Palisades



Regupol palisade fencing provides a versatile boundary to an area, whilst also combining play with safety. The palisades can be used to enclose sandpits, trees and other areas, and can be sat on or used to practise one's balancing skills. They can be interlinked to form curves, making them the ideal material

for creating a play area with scope for a whole variety of designs and shapes. In contrast to concrete, plastic or wooden palisades, their elasticity reduces the risk of injury. They are available in two different heights, enabling structures to be constructed that encourage balancing and jumping. Regupol Palisades

are supplied with a steel anchor which guarantees secure mounting in a concrete foundation. The superb quality of Regupol palisades means that they are durable and robust.



The steel anchor pipe ensures secure and durable mounting in the concrete bed.

Dimensions (mm height x mm Ø)	Weight (kg / piece)
400 x 250/200	approx. 17
600 x 250/200	approx. 24.5

Anchor pipe approx. 280 mm  
5 pieces/m

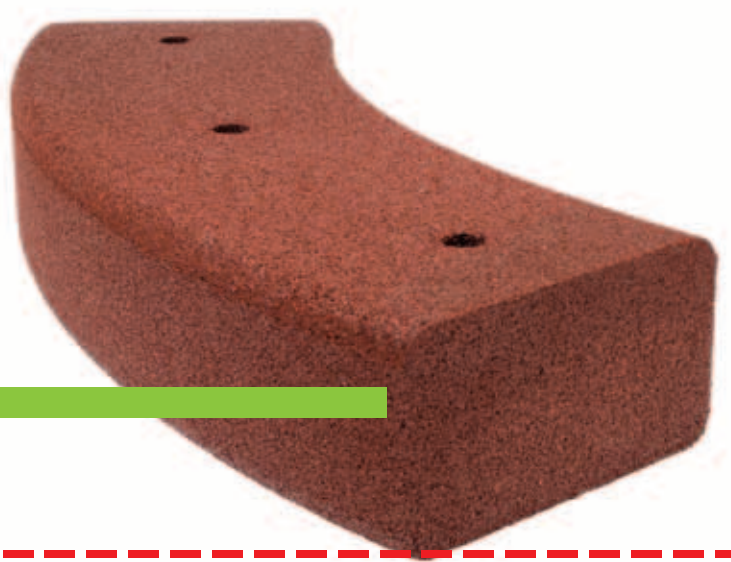
**Material:** PUR-bonded rubber granulate, dyed

**Colours:** redbrown

**Applications:** enclosure of safety surfaces, sport and play areas, trees and bushes, balancing walkways, for sitting on, steps on slopes for children's play

**Installation:** Mounting in a foundation of freshly laid concrete by means of the integral anchor pipe.

Installation instructions see page 38.



# Regupol Sandpit edging blocks

Regupol sandpit edging blocks provide a versatile material for creating borders, combining functionality with safety. Straight blocks and curved pieces (eight of which form a circle) offer numerous permutations for

differently shaped sand play areas. Like the other Regupol modular blocks their quality structure offers a consistent balance between elasticity and rigidity. This ensures stability combined with accident prevention. Regupol

sandpit edging blocks can be installed securely and permanently by adhesion or screwing. You can use the curved blocks to create areas of almost any shape.



Straight and curved blocks provide a versatile material for creating a variety of borders.



Bungs can be used to blank off the screw holes on the upper side safely and permanently.

Dimensions (mm)	Weight (kg / piece)
straight block	
1,000 x 300 x 150	approx. 40
curved block	
1,021 / 785 x 300 x 150	approx. 37
diameter of circle (inside)	
2,000 mm	

**Material:** Rubber granulate, PUR-bonded, dyed

**Colours:** redbrown

**Installation:** By adhesion or screwing into concrete base

**Structure:** Straight and curved blocks (8 form a full circle), rounded-off edges, screw holes can be blanked off using bungs.

**Applications:** for enclosing sand play areas and other sport and leisure areas, as planter walls, for sitting on, steps on slopes for children's play, staging etc.

Installation instructions see page 39.



## Regupol Step blocks

Regupol step blocks are versatile moulded blocks for playing and sports areas. They combine functionality with safety, as their elasticity, like that of all Regupol products,

helps to prevent injuries. They are ideal for enclosing playing and sports areas and are also suitable for building steps and stabilising slopes. Regupol step blocks are easy to lay

and cut to size. They are the safe alternative to wood and stone and are durable and weather-resistant.

**Material:** PUR-bonded rubber granulate, dyed

**Installation:** By adhesion to concrete base

**Dimensions**  
(mm)

**Weight**  
(kg / piece)

**Colours:** redbrown

Installation instructions see page 40.

1,000 x 300 x 300

approx. 80.5

**Applications:** for enclosing sport and play areas, landscaping of slopes to create standing or seating terraces, or sets of steps

## Regupol Bollards

Regupol bollards are designed as vehicle barriers whose elasticity reduces the damage caused to vehicles upon gentle impact. The elastic rubber granulate composition of the bollards provides perfect shock absorption. At

the same time the Regupol bollards themselves are not easily damaged, as Regupol is largely impact and abrasion-resistant. Regupol bollards have no hard edges and corners so this, combined with their elasticity, reduces the risk

of injury should a cyclist hit them. In the event of a major impact with a vehicle the material does not splinter. Regupol bollards are available in two heights.

**Material:** Rubber granulate, PUR-bonded, dyed

**Applications:** as a barrier for vehicles, slowing down measure for bicycles, zoning off different areas in a public area, as a seat on playgrounds

**Dimensions**  
(mm)

**Weight**  
(kg / piece)

**Colours:** redbrown

**Installation:** Setting into a natural base or freshly laid concrete

Post diameter 200

Seat diameter 400

Seat height 100

Total height 1,250 approx. 40.2

(including post 1,150)

Total height 650 approx. 24.5

(including post 550)

**Structure:** Post available in two lengths, circular seat is mounted by gluing onto the mounted post

Installation instructions see page 41.



## Information and resources

Please find below details of information and resources to assist you in your product selection and project planning.

### Specifications

We will send you the following specifications for our impact protection and elastic surfaces:

- Regupol impact protection and elastic tiles
- Playfix
- Playfix EPDM IS
- Playfix Indoor
- Pavers

You will receive these specifications in hard copy, by mail, as a Word or PDF file or as a download in this format from our Internet site.

### Drawings

Drawings relating to our installation instructions (see pages 32– 41) are available as a download from our Internet site for incorporation into your planning documents.

### Planning folders for architects

The planning folder for our impact protection and elastic products with comprehensive information and resources is available upon request by contacting us by 'phone on +49 2751 803 142 or writing to fallschutz@berleburger.de.

[www.berleburger.de](http://www.berleburger.de)

On our Internet site you will find a variety of information about our impact protection and elastic products as well as all resources (installation instructions, specifications, drawings, this brochure as a PDF, test certificates/reports as a PDF) for download. You will also find information about all of our products – from sport and fitness surfaces for indoor and outside areas to sound absorbing products to judo and gymnastic mats.

### The BSW-Product-CD

The content of our product and information CD is identical to our Internet site and offers you the same services including all resources. You can obtain the CD by 'phoning +49 2751 803 142 or writing to fallschutz@berleburger.de.

### Product samples

Upon request we can send you samples of all of our impact protection and elastic products together with colour samples as required for our EPDM impact protection tiles, Playfix, Playfix EPDM IS and Playfix Indoor. Telephone +49 2751 803 142 or contact fallschutz@berleburger.de.



## Pre- and aftersales service

As a complement to our impact protection and elastic products we offer you a range of services to facilitate your product selection and offer advice on the care and maintenance of your impact protection surfaces.

### Personal consultation

No one project is like another. Our experienced customer advisers are at your disposal for all sorts of questions pertaining to the purchase and maintenance of your impact protection and elastic surfaces. Our consultancy services range from the answering of simple questions to the development and calculation of special solutions for complicated projects.

### On site consultation

Our field representatives will be happy to arrange a meeting with you to find the perfect solution.

### Manufacture of individual colour samples

After you have decided on a colour scheme, we will manufacture a colour sample from original materials. The appearance of this sample will be virtually identical to the subsequent flooring.

### Production of colour graphics

Whether Playfix or Regupol impact protection EPDM tiles: we will send you a graphic of your floor in the colours and patterns of your choice. Simply let us know the percentage breakdown of your chosen colours (see page 17) and within a short time you will receive an email with a graphic representation of your design.

### On site installation

Our Playfix floors are installed by our technicians in situ. Knowledge of the materials and experience are of critical importance to the installation. For this reason our fitting teams are made up of fully salaried employees or colleagues from companies with whom we have been successfully working together for many years. We do not entrust our products to semi-skilled temporary staff.

### Renovation

You can order replacements for individually damaged tiles or moulded products from us even many years later. Their measurements and quality of materials does not change, thereby ensuring that they are a perfect swap for the damaged pieces.

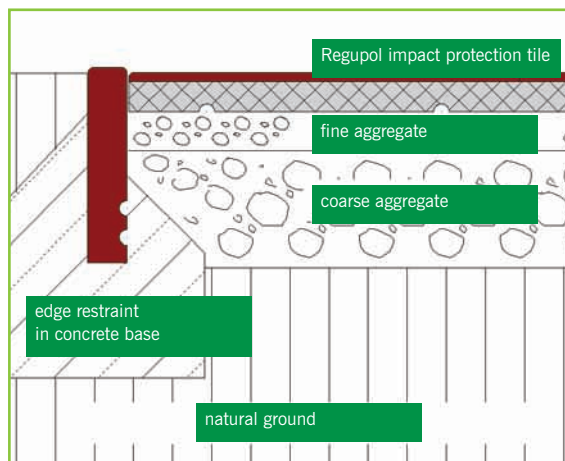
### Complete reconditioning

Time leaves its mark on even the most robust of materials. If you wish to refresh the colours of your impact protection surface and moulded parts, give us a call. A coat of weatherproof and wear-resistant PUR paint will make old Regupol material look like new again.

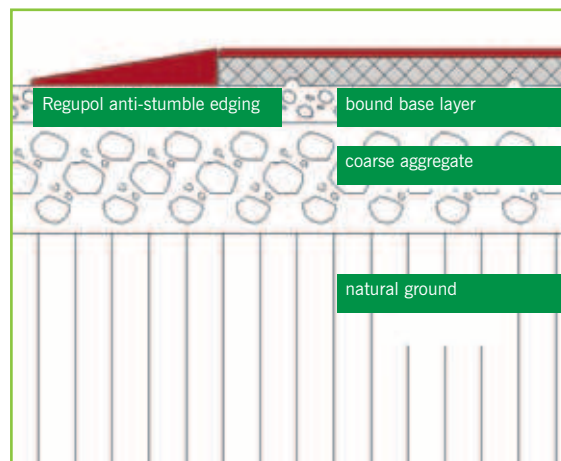
### Line marking, writing

We can paint your play and sport areas with lines, numbers, letters or symbols. Another use for our weatherproof and wear-resistant PUR paints which have been used on surfaces for professional sport for years.

# Installation instructions for impact protection and elastic tiles



unbound base layer



bound base layer

## The base layers

The substructure should be constructed to be frost-stable in accordance with local practice. This involves digging out the area to the required depth, taking into account the installation depth of the Regupol impact protection or elastic tiles.

It is important to ensure good drainage.

The frost-stable base should consist of a coarse aggregate with a grain size of 0 to 35 mm, minimum thickness 30 cm, which should be overlaid with a layer of fine aggregate with a

grain size between 0 and 3 mm or 0 and 7 mm, thickness approx. 5 cm. The aggregate layers must be firmly compacted.

Concrete or asphalt surfaces are subject to local regulations.

## Laying the tiles

### Joining the tiles to each other

Regupol impact protection and elastic tiles can be joined to one another by means of dowels and glued if required. In most cases the use of dowels will be sufficient, reducing the time needed for installation. The tiles must be stuck one by one to the bound base layer. This prevents deliberate levering out and displacement of the tiles.

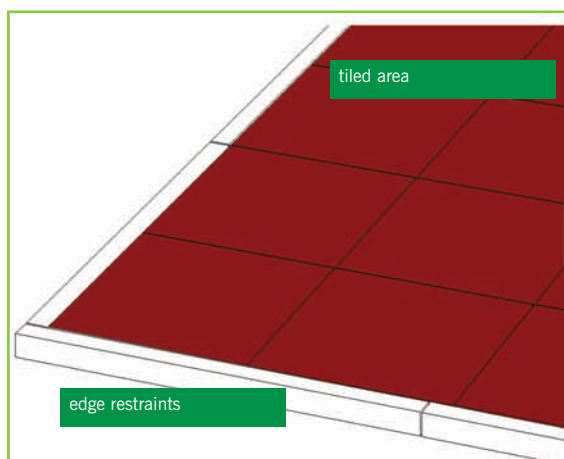
### Edge restraints

Before laying the tiles on an unbound base layer an edge should be made to two sides of the area (at a corner) in order to facilitate seamless and precise positioning of the tiles. The Regupol edge restraints can be used for this purpose (page 26).

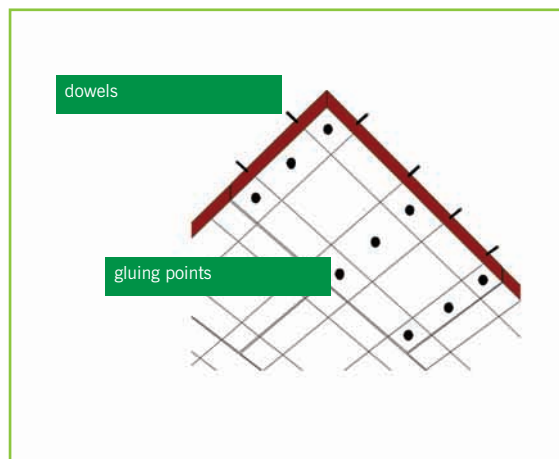
### Laying the tiles

You should begin laying the tiles in the corner bordered by the edge restraints. First lay a row of tiles from this corner to the opposite end, connecting them with dowels and gluing if necessary. Now lay the other tiles.





Tiled area with edging



Tile with gluing points and dowels

## Hints for laying

### Laying edge to edge

As you lay the tiles make sure that they are perfectly aligned. There should be as little space as possible between the tiles, so it is recommended that you apply strong horizontal pressure as you position each tile. This will prevent subsequent gaps from developing, as the material may shrink over time.

### Anti-stumble edging

When surrounding a tiled area with anti-stumble safety edges, they must be glued to the tiles. This gives added strength. The installation of anti-stumble edging is identical to that of tiles.

### Cutting the tiles

Cut the tiles using a good pendulum jigsaw (coarse wood saw blade or wave blade). This also applies to fittings at the base of equipment, conduit inlets, other floor surfaces etc. The fittings should be fixed using adhesive.

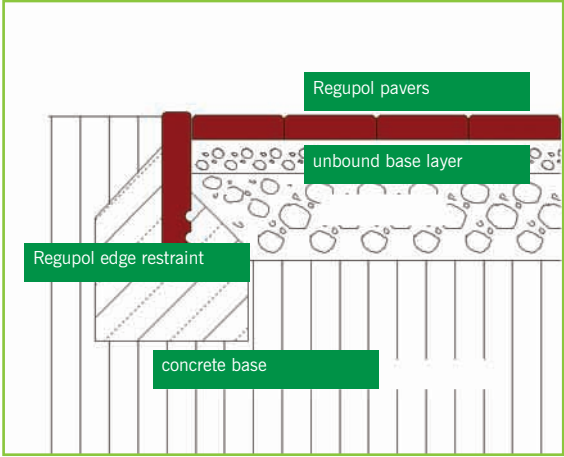
### Adhesion to a bound surface

The adhesive required for gluing the tiles to a cemented base layer is available from BSW. It is a two-component PU adhesive. The tiles should be glued to the bound surface at the nine glue spots on the underside of the tile. You must ensure that the base is dry and clean, the outside temperature must be at least 10 °C. Glue coverage: approx. 1 kg/m<sup>2</sup>, depending upon the base course.

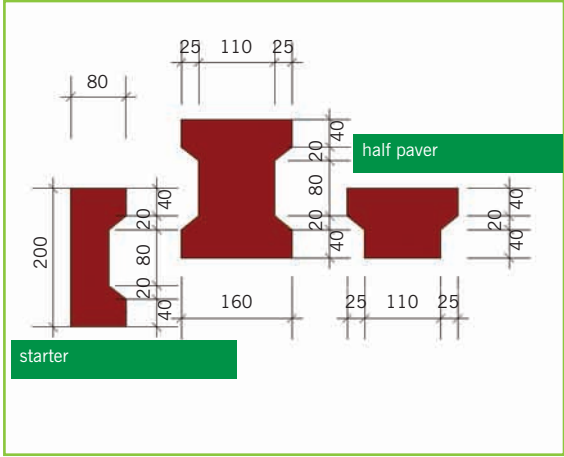
### Laying on an unbound surface

When laying on an unbound surface, the tiles can be glued together using a single-component PU mastic besides connecting with dowels. The single-component adhesive is also available from BSW. This adhesive has the advantage that it retains a certain degree of elasticity between the gaps, which accommodates the impact protection properties of the tiles. You should observe the above diagram when applying the adhesive. The process can be carried out between outside temperatures of +5 and +35 °C. One cartridge is sufficient for approx. 4 m<sup>2</sup>. The bead diameter of the mastic adhesive should be 5 – 7 mm.

# Laying Regupol Pavers



unbound base layer with edge restraint



half pavers and starters

## The base layers

The unbound and bound base layers for the elastic Regupol pavers are the same as those required for the Regupol impact protection

and elastic tiles (page 32). Note that the 21 mm thick Regupol pavers may only be glued to a concrete or asphalt base layer. 43 mm

Regupol pavers can be laid on any base layer.

## Laying the pavers

### Laying on an unbound surface

Regupol pavers are laid like normal concrete paving stones. Their double T-shape resembles the Behaton concrete paving. The paving slabs are laid hard up against each other starting from one corner, then compacted with a plate vibrator and the joints filled with sand.

### Laying on a bound surface

Depending upon the application, the pavers can be laid on a concrete or asphalt base with an edge restraint in place either loose or using

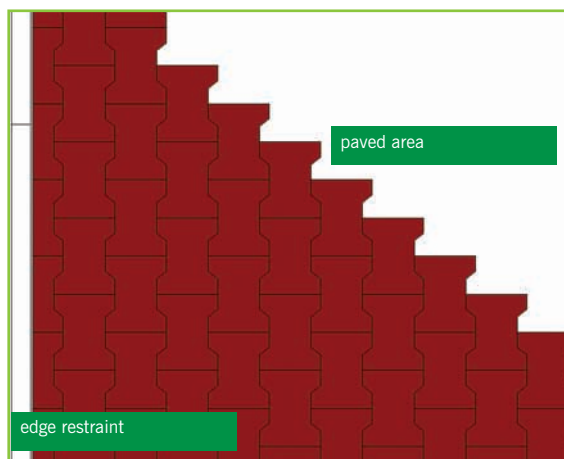
adhesive. When laying the slabs you should ensure that the underlying base is angled by 1 – 2 % for optimum drainage.

### Edge restraint

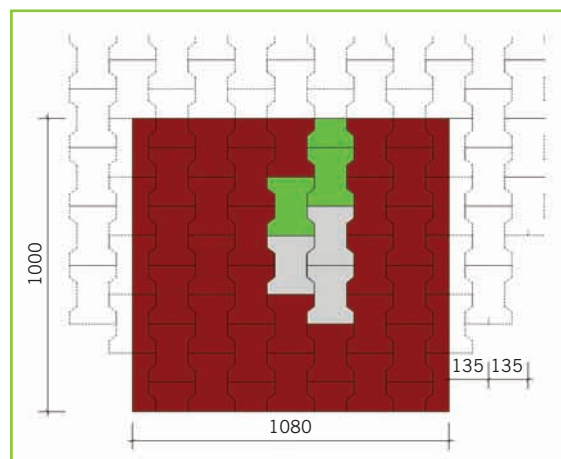
As with conventional paving slabs, edge restraints are required. We recommend the elastic Regupol edge restraints (page 26), which resemble the Regupol pavers in quality and appearance. To increase stability you can stick starters, half stones and whole stones to the edge restraint.

### Cutting the pavers

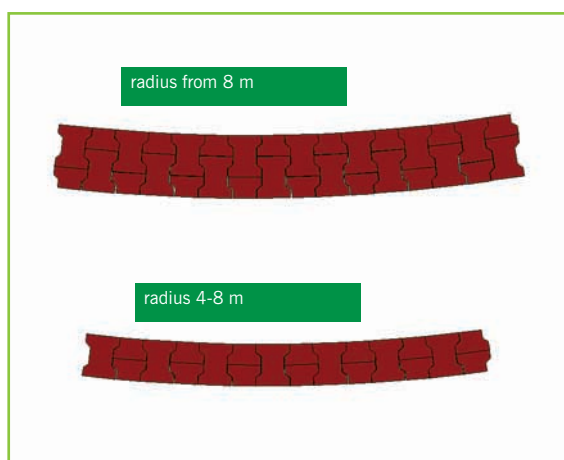
Cut the pavers using a good pendulum jigsaw (coarse wood saw blade or wave blade). This also applies to fittings at the base of equipment, conduit inlets, other floor surfaces etc. The fittings should be fixed by gluing.



Paving with edge restraint



Interlocking pavers



Laying pattern for radius over 8 m

Laying pattern for 4–8 m radius

### Adhesion to a bound surface

The glue required for sticking the pavers to a bound surface is available from BSW. It is a two-component PU adhesive. To glue the stones to a bound surface the adhesive should be applied to the underside of each stone in turn. The surface must be dry and clean and the outside temperature at least 10 °C. Glue coverage: approx. 2 kg/m<sup>2</sup> depending upon surface.

### Gluing onto an unbound surface

When laying pavers on an unbound surface you can increase stability by gluing starters, halves and whole stones to the edge restraints using a one-component mastic adhesive. This single-component adhesive is also available from BSW. The process can be carried out between outside temperatures of +5 and +35 °C. One cartridge is sufficient for approx. 3 m<sup>2</sup>. The bead diameter of the mastic adhesive should be 5–7 mm.

### Laying in curves

When laying the pavers in a curve the stones are not interlinked and half-stones are used to create several narrow strips with gaps of a variable thickness. This procedure can be followed for a radius from approximately eight metres, where the thickness of the strip should not exceed two normal stones and one half-stone (approx. 50 cm).

Curves with a radius of between four and eight metres are laid in strips with two half-stones.

# Laying Playfix, Playfix EPDM IS, Playfix Indoor

## Playfix

### Preparing the surface

The surfaces required for Playfix are identical to those for Regupol impact protection and elastic tiles (page 32). Playfix can be laid on both bound and unbound surfaces. Care should be taken to ensure that over a distance of 4 m, the difference in level does not exceed 4 mm. When laying Playfix on top of existing surfaces, irregularities must be levelled out with fine grit, asphalt or concrete.

### Edge restraint

Before installing Playfix the surface should be enclosed by a restraint. We recommend the elastic Regupol edge restraints.

### Installation

Both layers of Playfix - the lower impact protection layer and the upper coloured wear layer - are applied in a semi-fluid state in situ onto the prepared area. This work can only be carried out by BSW or an authorised agent as installation requires experience and professional expertise.

## Playfix EPDM IS

### Preparing the surface

The surface for Playfix EPDM IS is the same as Playfix. Particular attention must be paid to evening out irregularities.

### Edge restraint

We recommend Regupol edge restraints. With thin wear layers an edge restraint is not absolutely necessary.

### Installation

The elastic wear layer of Playfix EPDM IS is applied in a semi-fluid state in situ onto the prepared area. This work can only be carried out by BSW themselves or by an authorised agent.

## Playfix Indoor

### Preparing the surface

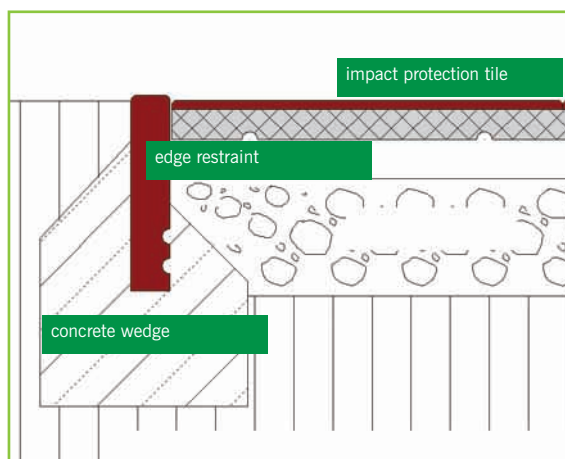
Playfix Indoor is only installed in inside areas. The prepared surface must be level and have a dry cement or asphalt screeded bed. Application on top of any other existing floor covering must be assessed on an individual

basis. It is important to ensure that any surface used is moisture-proof, as bumps caused by rising moisture may otherwise form underneath the waterproof polyurethane wear layer.

### Installation

Installation of Playfix Indoor can also only be carried out by BSW themselves or by an authorised agent, as the application of the fluid PUR layers requires specialist knowledge.

# Laying Regupol Edge restraints



Edge restraint in concrete wedge  
next to impact protection tiles

## The base course

### Preparing the base course

Make a concrete bed (C30/37, XF4 or in accordance with local requirements) on a frost-stable and even surface.

Dimensions of the concrete bed:

Height approx. 10 cm, width approx. 20 cm

After inserting the edge restraint heap the concrete into a double-sided wedge and compact it, ensuring that the concrete penetrates into the grooves of the edge restraint creating the necessary anchoring for the moulded unit.

Dimensions of the whole concrete bed heaped up into the wedge:

Height 20 cm  
Width 20 cm

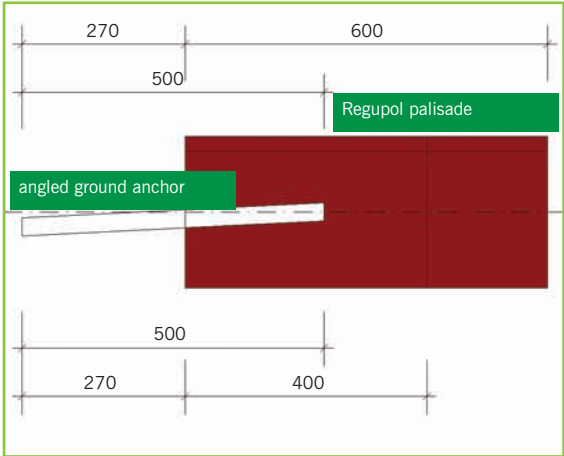
## Installation

The Regupol edge restraints should be set firmly into the concrete bed approximately 5 cm deep to their actual height and perpendicular to the ground. If required the adjoining edges of the restraints can be glued together using

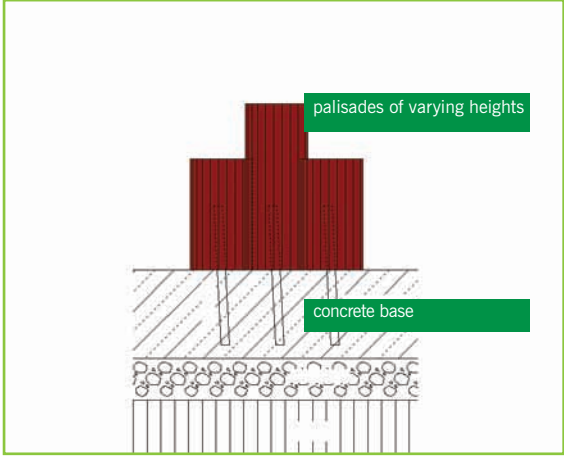
a single-component PU adhesive. Then the double-sided concrete wedge is heaped up until the restraint protrudes from the concrete by approx. 10 cm. The concrete is compacted.

Regupol edge restraints can also be bent into position. To do this the bent moulding has to be held using reinforced steel or wooden laths until the concrete has set. Then the steel or laths are removed.

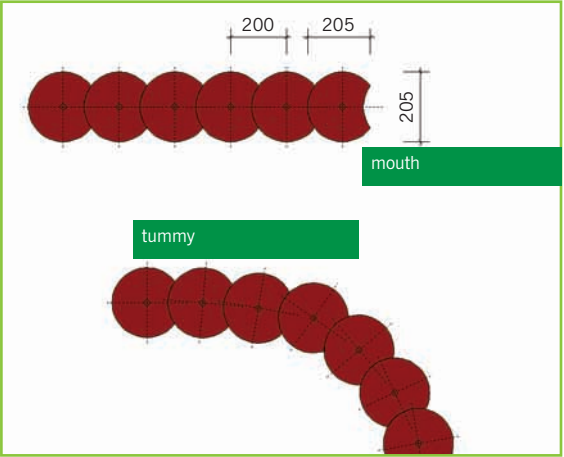
# Installation Regupol Palisades



Regupol palisade with angled ground anchor



Regupol palisades on concrete base



Regupol palisades formed into shapes

Regupol palisades are anchored into a concrete base (C30/37, XF4 or in accordance with local regulations).

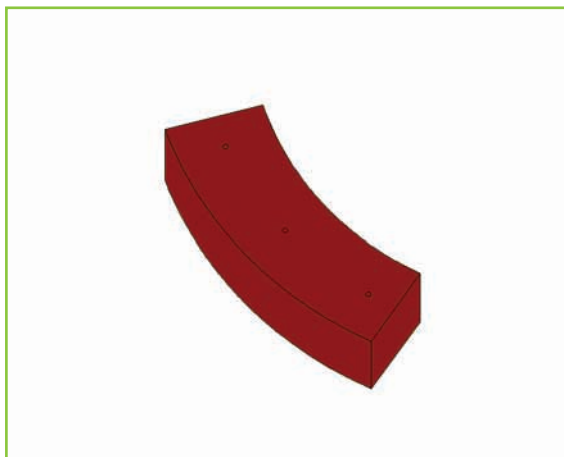
Dimensions of the concrete base:

- Height 50 cm
- Width 30 cm

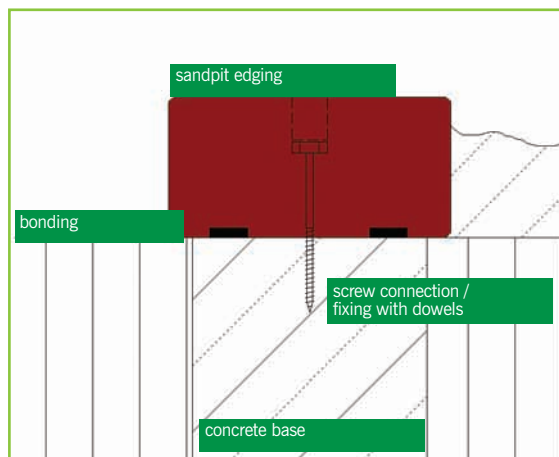
The palisade is set into the fresh concrete perpendicular to the ground and at the right height using the slightly angled ground anchor. The concrete is then compacted.

# Installation

## Regupol Sandpit edging



Sandpit edging curved



Sandpit edging on concrete base  
with mechanical fixing / gluing

### The base course

Regupol sandpit edging components are bonded or screwed onto a concrete base (C30/37, XF4 or in accordance with local regulations).

Dimensions of concrete base:

Height 35 cm  
Width 25 cm

The surface of the concrete must be skimmed smooth.

### Installation by bonding

Regupol sandpit edging modules should be bonded hard up against each other in a vertical position using two-component PU adhesive onto a dry, smooth, dust and dirt free concrete base. The outside temperature must be at least 10 °C. The bungs supplied should be glued into place to seal the unused screw holes on the surface of the sandpit edging.

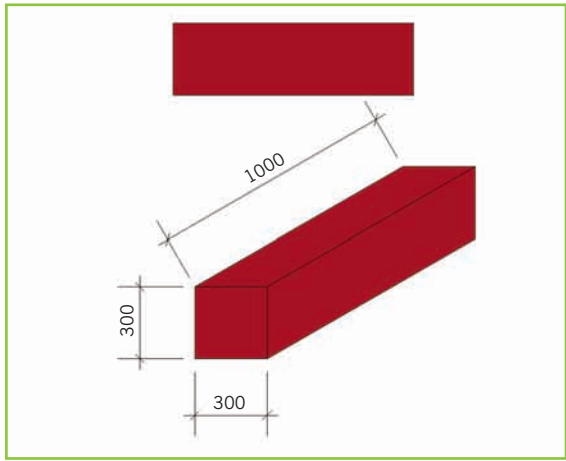
### Installation by screwing

Screws should be used to fix Regupol sandpit edging onto the concrete base perpendicular to the ground and hard up against each other. Each module has three screw holes. Before

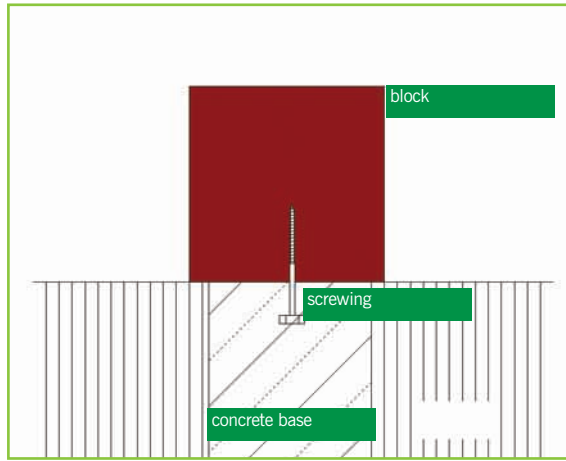
installing the Regupol edging the following dowels must be set into the concrete in the appropriate positions: S12, D:12 mm with washer. The edging pieces are then fixed onto the concrete base using galvanised wood screws (8 x 180 mm). The bungs supplied should be glued into position to seal the screw holes on the surface of the sandpit edging. Screws and dowels are not included, adhesive and bungs are supplied.

Modules can be cut to the correct length and corners mitred using a chain saw. Specially cut edging pieces can be supplied ex works upon request.

# Laying Regupol Blocks



Block with measurements



Blocks connected to concrete base by screws

## The base layer

Regupol blocks can be laid on bound or unbound surfaces or on ready-mix concrete. All surfaces require a foundation of loose gravel with a granulation of 0-35 mm, thickness approx. 30 cm. An additional layer of fine grit 0-3 or 0-7 mm to a thickness of 5 cm should be laid on top.

Level this gravel and grit layer so there are no cavities and the gravel is firmly compacted.

Height 35 cm  
Width 25 cm

For bonding and setting in fresh concrete the concrete base must have the following dimensions:

The surface of the concrete must be skimmed smooth.

## Mounting by gluing

Regupol blocks should be glued hard up to each other and perpendicular to the ground onto the dry, smooth, dust and dirt-free concrete base using two-component PU glue. The outside temperature should be at least 10 °C.

Modules can be cut to the correct length and corners mitred using a chain saw. Specially cut blocks can be supplied ex works upon request.

## Mounting by anchoring

To mount on concrete using screws, screw galvanised hexagonal screws (10 x 200 mm) or anchors into the underside of the block. Position the block with the protruding screws into the fresh concrete. Glue the blocks together using single-component PU glue to hold them together better.

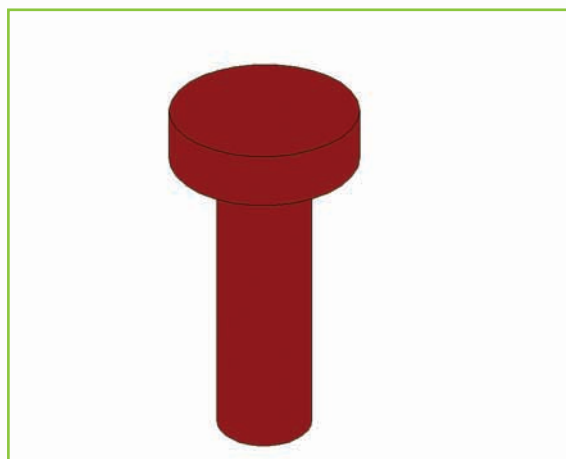
## Mounting on an unbound surface

Lay the blocks on the fine grit and glue the blocks together using single-component PU adhesive to better hold them together. Their own weight ensures that the blocks won't slip. However, heavy use will require the blocks to be laid on concrete.

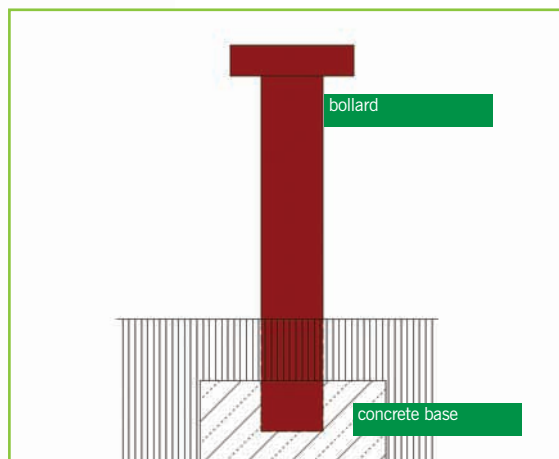


# Installation

## Regupol Bollards



Regupol Bollard



Regupol Bollard in concrete base

### The base layer

Under normal conditions Regupol bollards can be embedded straight into the ground. Set the post of the bollard about 30 cm deep from the top edge of the wear layer into the ground. The ground must be compacted after

the hole has been filled. If the bollards are to be subjected to excessive stress they can also be set into a ready-mixed concrete bed (C30/37, XF4 or in accordance with local regulations). The concrete bed should measure

40 cm in height with a 30 cm diameter. After the post has been set into the concrete (also 30 cm deep from the top of the wear layer), the concrete must be compacted.

### Installation by gluing

The posts must be installed vertically, perpendicular to the ground and at the same height. Stretch a guide line across if necessary to ensure correct positioning. The top edges of the long posts (total height of post 1,150 mm) should lie 85 cm above the level of the

ground, and the shorter posts (total height of post 650 mm) 35 cm above the ground. After the posts have been installed the round seats should be fixed to the post using two-component PU glue. The outside temperature should be at least 10 °C. Attachment of the

seats after the posts have been installed is optional. If you require heights other than those stated, the posts can be cut to the right height before installation using a chain saw.



# A rounded range: sports flooring from BSW

BSW is one of the world's largest manufacturers of sports flooring. Besides special floors for playgrounds and small pitches, our range is divided into the following subdivisions:

### Athletics surfaces

From the sprint track to the community sports area through to the running circuits in the largest stadia in the world. BSW produces and installs athletic areas which match up to the highest professional requirements.

### Pitch surfaces

Elastic floors for all sorts of ball sports are also made from Regupol products. Different wear layers and elastic layers are suited to the individual kinds of sport and create the perfect conditions for amateur sportsmen, women and professionals.

### Sports hall floors

Point and combi-elastic hall floors from BSW are suitable for all sports halls. They combine excellent protective functions with extraordinary sturdiness and durability. Thousands of sports halls all over the world bear testimony to this.

### Fitness centre floors

Everroll fitness floors are some of the best-selling floors of their kind. They have an array of unique characteristics which are perfectly designed for gym equipment and other activities in fitness centres. However, because of its versatility Everroll is also used in lots of other sports facilities.

Ask about our sports range. You will discover lots more interesting products.





Factory 2 in Bad Berleburg is the largest of our three production sites.

## Your contacts at BSW

### Jürgen Jeschke

Sales Director  
Regupol Moulded Parts  
Telephone +49 2751 803-140  
Telefax +49 2751 803-149  
E-Mail [j.jeschke@berleburger.de](mailto:j.jeschke@berleburger.de)

### Olaf Brinkmann

Customer Adviser  
Regupol Moulded Parts  
Telephone +49 2751 803-141  
Telefax +49 2751 803-149  
E-Mail [o.brinkmann@berleburger.de](mailto:o.brinkmann@berleburger.de)

### Achim Höse

Customer Adviser Playfix  
Telephone +49 2751 803-138  
Telefax +49 2751 803-139  
E-Mail [a.hoese@berleburger.de](mailto:a.hoese@berleburger.de)

### Jan Weber

Customer Adviser  
Regupol Moulded Parts  
Telephone +49 2751 803-144  
Telefax +49 2751 803-149  
E-Mail [j.weber@berleburger.de](mailto:j.weber@berleburger.de)

### Christoph Weyandt

Customer Adviser  
Regupol Moulded Parts  
Telephone +49 2751 803-143  
Telefax +49 2751 803-149  
E-Mail [c.weyandt@berleburger.de](mailto:c.weyandt@berleburger.de)

#### BSW postal address

BSW GmbH  
Postfach 1180  
57301 Bad Berleburg (Germany)

#### For questions about other products

Telephone +49 2751 803-0  
Telefax +49 2751 803-109  
E-Mail [info@berleburger.de](mailto:info@berleburger.de)

#### BSW Internet site

[www.berleburger.de](http://www.berleburger.de)



## Regupol®

Regupol® is the material from which BSW GmbH manufactures all sorts of different flooring systems for sport, fitness and leisure. Regupol® is a mixture of rubber and polyurethane. The rubber is processed in BSW's manufacturing sites for a variety of special requirements using

different formulae. Regupol® products are versatile, durable, resilient, pose no health risks and are completely recyclable. Project-based personalised manufacture, customised packaging and warehousing ensure quick and application-specific problem solving.

## BSW

- manufactures exclusively in Germany, with employees on regular wages being paid at recommended rates. This also applies to our fitters.
- produces quality.  
We refuse to content ourselves with compromises that appear attractive to you in the short term but disappoint in the long term.

## BSW

- is a service provider.  
We take our product-related services just as seriously as the quality of our products.
- is one of the leading suppliers.  
We have achieved this position through the competence and motivation of our employees, the quality of our products and the reliability of our customer service.



Certified according to  
DIN EN ISO 9001  
DIN EN ISO 14001  
OHSAS 18001

**BSW**  
Berleburger Schaumstoffwerk GmbH  
Postfach 1180  
57301 Bad Berleburg (Germany)  
Telephone +49 2751 803-141/-143  
Telefax +49 2751 803-149  
E-Mail fallschutz@berleburger.de  
Internet www.berleburger.de



Manufactured in accordance with highest industrial safety and environmental standards. Award winning manufacturing process.

# Regupol Interlocking Paver VB + VBG

## Product Details

### Material

Rubber fibres and rubber granulate, PUR-bonded, solid-coloured

### Structure

Single-layer structure of homogeneous material; double T-shapes, beginners and half stones also available.



half



beginner

### Installation

On concrete or asphalt

Dimensions	Weight	Colours
200 x 160 x 43 mm	approx. 39 kg/m <sup>2</sup>	brick red, green, black Other colours on request
200 x 160 x 21 mm	approx. 20 kg /m <sup>2</sup>	ditto

Tolerances: length/width +/- 1 % / thickness +/- 2 mm

### Advantages of Regupol falling protection and elastic products

- Reliable, uniform falling protection, non-slip properties
- Low-priced, economical
- Long-life, durable, weather-resistant
- Hygienic, low-maintenance, easy to clean
- Sound-proofing
- Permeable to water, quick to dry
- Varied design and application possibilities
- Environment-friendly
- Quick to install, Quick to remove again
- Comprehensive pre- and after-sales service