

## SAFEPOL SYSTEM WITH TPV GRANULES (thermoplastic vulcanized rubber)



**Elastic safety wet-pour flooring ideal for children playground floorings, applied at site in various thickness from 4cm up to 20cm.**

Consists of **RECYCLED RUBBER 858** in granulometry of 1mm-3mm and **PU BINDER 1118** for the first layer (**SAFEPOL**) and of **KDF TPV granules** in granulometry of 1mm-3mm or 2mm-4mm and **PU BINDER 1118** for the upper layer (**SAFEPOL TPV MULTICOLOR**). The final top coating over the TPV surface is the UV-resistant, mat, top coating **POLYSPORT XP 1069** in two crossing layers. It can create many designs and patterns in a variety of **KDF TPV** colors. It is applied in 4cm up to 20cm thickness, even on compacted, clean, dry gravel and on cement or asphalt surfaces.

### Steps :

1. **PU PRIMER 870** – Polyurethane Primer. Applied by brush or airless spray.
2. **SAFEPOL – Mixture of PU BINDER 1118 and RECYCLED RUBBER 858 in granulometry of 1mm–3mm.** Applied by flat metal trowel after spreading and leveling with rake and straightedge. Rolling with cylinder for compacting.
3. **SAFEPOL TPV MULTICOLOR – Mixture of PU BINDER 1118 and KDF TPV in granulometry of 1mm- 3mm or 2mm-4mm.** Applied by flat metal trowel after spreading and leveling with rake and straightedge. Rolling with cylinder follows for compacting.
4. **POLYSPORT XP 1069 - UV-resistant, two-component, universal, mat, top coating for the protection of EPDM and TPV granules.**

Applied in two crossing layers by airless sprayer or short haired mohair roller on the surface in the desired color, as dual protection from UV sunlight and color fading while giving the possibility to crate different designs and patterns. Necessary protection for all EPDM/TPV colors except basic colors of KDF's colorchart, E3 & E10 and TPV 6 & TPV 9.

## Preparation – Application

Applied on dry, stable surfaces, free of materials that might prevent bonding e.g. dust, loose particles etc (in case of asphalt or concrete). The success in the application depends on the right preparation of the underlay and use of the material.

- **Good, dry** cleaning of the surface from dust and residues.
- Priming of the surface with the special **POLYURETHANE PRIMER 870** in two layers. Consumption: 200-250 gr/m<sup>2</sup>, depending on the absorption of the underlay. It is recommended that the second layer should be applied in sections each time, right before the application of the **PU BINDER 1118** and **RECYCLED RUBBER** mixture (**SAFEPOL**), in order to ensure proper adhesion, especially on the edges and endings of the playground flooring.
- Good mixing of the **PU BINDER 1118** and the **RECYCLED RUBBER** (mixture **SAFEPOL**). Following, the mixture is applied on the surface manually, using rake for spreading, (wooden) straightedge for initial smoothing, flat metal trowel for final smoothing and compacting, cylinder weighing 8-15kg for final compacting- (cylinder should be cleaned repeatedly with diesel to remove stuck granules from its surface). Consumption: 7,0kg/m<sup>2</sup>/cm.
- After 48 hours at least, follows the application of the mixture of **PU BINDER 1118** and **KDF TPV granules** in granulometry of 1mm-3mm or 2mm-4mm (mixture **SAFEPOL TPV MULTICOLOR**) using rake for spreading, (wooden) straightedge for initial smoothing, trowel for final smoothing and compacting, cylinder weighing 25 kg (or so) for final compacting (cylinder should be cleaned repeatedly with diesel to remove stuck granules from its surface). Consumption: 12kg/m<sup>2</sup>/cm.
- In case of any small irregularities on the surface may be removed by rolling the surface using a metallic cylinder when it's still fresh.
- **POLYSPORT 1069 XP** is sprayed on the surface, using also a short haired mohair roller, in the desired color as a double UV protection of the color on the surface, to create different designs and patterns and last for many years. Consumption: 0.4kg/m<sup>2</sup>. (necessary protective top coating for all colors of EPDM except when using the standard colors from KDF colorchart, E3 & E10).

## Important Remarks

- ✓ During temperatures over 40 degrees, ideal time for the application of **SAFEPOL SYSTEM WITH TPV GRANULES** is between 22:00 and 09:00 and the minimum bearing temperature during application and drying should be over 10°C.
- ✓ The freshly coated surface should be protected from high temperatures, wind, rain and frost for at least the first 24 hours.

- ✓ In case it gets damaged, it is simply repaired and recoated on the spot.

## Substrate

Asphalt is the safer subfloor for sport floorings for sure and must be always preferred than concrete surfaces.

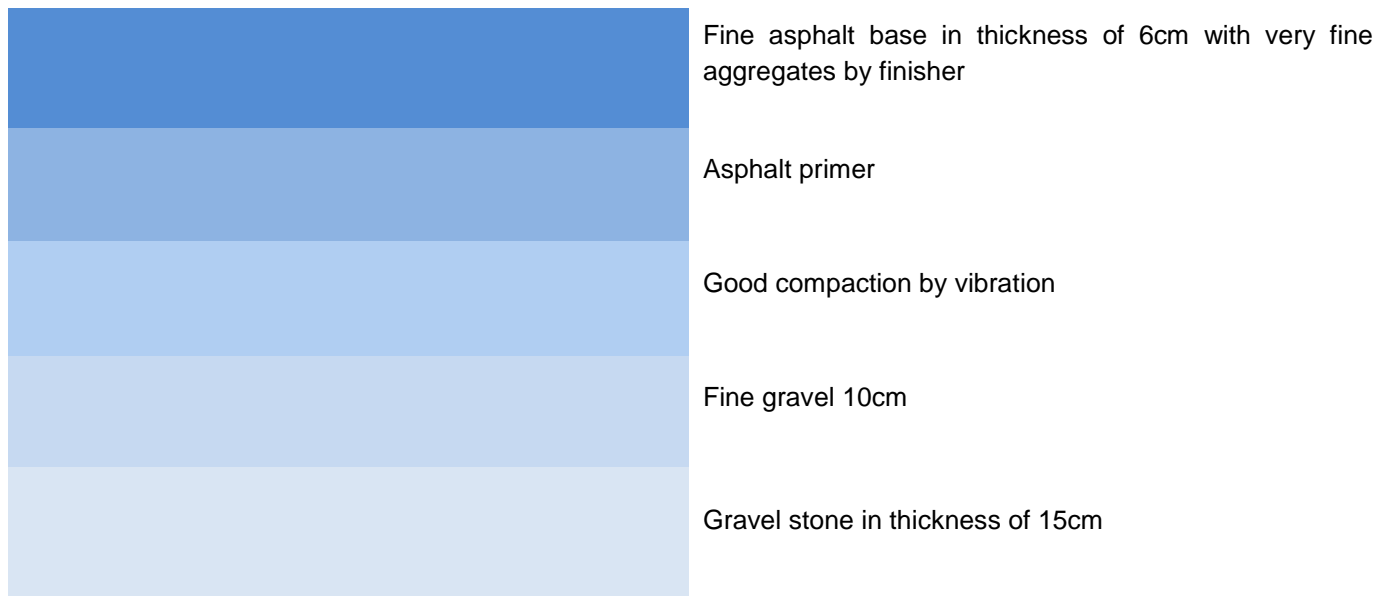
### A. Asphalt Substrate

The asphalt must have a slope of 0.7-1% and must dry for at least 30 days so that all solvents from the asphalt can evaporate.

The asphalt sub-floor should be applied on well compacted 150mm road base sub-floor and asphalt should be laid in one layer (and not 2) in 6 to 8cm with fine and coarse aggregates (up to 15mm granulometry) like the kind of asphalt used in road construction.

So, new road-grade asphalt will have to be laid (minimum 60mm) in one layer containing coarse aggregates and then mature for 30 days at least, before any application takes place on top of the asphalt to avoid bubbles on the final layer of the sport or rubber floorings.

### Asphalt Infrastructure



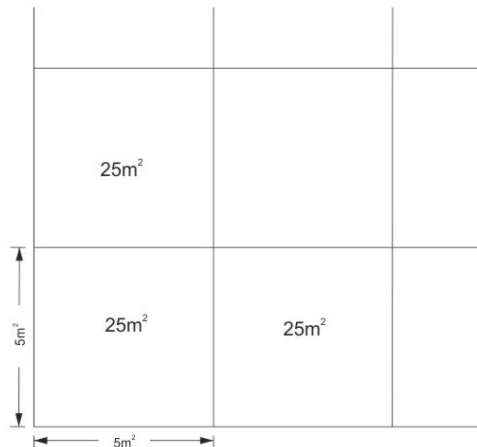
## B. Concrete Surface

**Concrete surface must be power-trowelled without cracks and must be smooth with a slope of 0.7-1% and humidity under 4% in 10cm depth of concrete.**

Concrete must also be **dry at least for 40 days** and then the application takes place if there is no rising humidity for the sub-floor. Before the application takes place, there must be proper grinding of the surface by a grinding machine to open the pores accordingly and also a measurement by special instrument to measure humidity on the surface and in 10cm under the surface.

Generally concrete is a risky sub-floor and there may be problems with rising humidity, especially in areas where the sea level is really high and when the sea is close or in areas near greenery.

**Always make expansion joints in large areas of concrete, in order to avoid uncontrollable cracks and failures.** Joints should be every 25 square meters creating a grid of 5x5 meters or close to that.



<b>SUBSTRATE REQUIREMENTS</b>	Concrete quality	at least C20/25
	Age:	at least 40 days
	Moisture content:	below 4%

# KDF

Sports Flooring Systems & Building Materials  
50 YEARS OF EXPERIENCE

## Tools:



Colors: Follows colorchart.

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# KDF

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TPV 1  
Eggshell

TPV 2  
Golden Yellow

TPV 3  
Yellow

TPV 4  
White

TPV 5  
Light grey

TPV 6  
Grey



TPV 7  
Light brown

TPV 8  
Brown

TPV 9  
Orange

TPV 10  
Red

TPV 11  
Red rose

TPV 12  
Pink

TPV 13  
Purple



TPV 14  
Light green

TPV 15  
Green

TPV 16  
Grass green

TPV 17  
Turquoise

TPV 18  
Blue grey

TPV 19  
Light blue

TPV 20  
Blue

TPV 21  
Navy blue

The colors may vary slightly from the original due to digital representation.

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