

## SYSTEM POLYFLEX AEL – IN Total thickness of 8mm – 14mm



Indoor highly flexible shock-absorbent, acrylic sports flooring system, ideal for multipurpose halls, gym floors, tennis, basketball, volleyball, handball, futsal courts (shoes without spikes), as well as any other indoor sports court.

Combination of prefabricated shock-pads with coatings in average total thickness of 8-14mm.

### Steps :

1. **PU FLEX 140 - Special, polyurethane, two component, adhesive.** It is applied, with V-notch trowel, on dry waterproof surfaces of concrete without rising humidity issues or asphalt. Used for the application of ISOPOL 854 shock-pads or other prefabricated shock-absorbent rolls made from recycled rubber or EPDM.
2. **ISOPOL 854 - Shock-pad in rolls.** Elastic, prefabricated shock-pad made of recycled rubber providing shock-absorbency, in thickness of 4mm up to 12mm. Used as cushion substrate before the application of polyurethane or acrylic systems.
3. **ELASTOTURF 851S - Acrylic, elastic, smooth, coating for sports floors systems.** Consists of acrylic resins, powder quartz sand and special improver. It is combined with ISOPOL 854 as substrate to create multi-purpose sports flooring systems. Highly resistant to adverse weather conditions (snow, frost, heat waves etc.) after drying. Applied by squeegee.
4. **POLYSPORT 952 - Polyurethane, aliphatic, two-component top coating for indoor sport floorings.** Applied, in two crossing layers by airless sprayer or short-haired mohair roller.

## Preparation – Application

Applied only on dry asphalt and waterproof concrete surfaces (over 40 days old from date of placement) without rising humidity issues and free of materials that might prevent bonding e.g. dust, loose particles, grease etc. 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 with vacuum cleaner and squeegees.
- Application of polyurethane glue, **PU FLEX 140**, with V-notch trowel with 2mm teeth. Consumption: 1kg/m<sup>2</sup>.
- Place the **ISOPOL 854** rolls on the floor in their final positions without gluing them. Lift each side of each roll and apply the PU glue by a V-notch trowel with 2mm teeth and then glue the rolls immediately without waiting. In case there are small bulges (humps, swollen parts) on the roll after its application, you'll have to tear it around the edge of the hump without removing it completely, raise that small part, put some PU glue underneath and glue the hump part again, making sure this time it's flat. Weights such as sand bags have to be used on the edges, corners and seams of the shock absorbent roll surface installation until the PU glue is cured. Then you let everything dry. Do not overlap the rolls but bring them as close together as possible to eliminate gaps. The usage of a light cylinder (10-15kg maximum) will help to compact the rolls on the floor. It is recommended that the joints (only) are covered flush with ELASTOTURF 851 or PU FLEX 140 with a flat trowel (or a brush) along their whole length, so that the surface is leveled out. Next day the joints are ground lightly with sandpaper or other grinding device to smooth out the joints with the rest of the surface and create the required roughness.
- Depending on ambient temperature **ELASTOTURF 851S** is diluted with 5-6 up to 10% water, prior to application, in order to achieve better fluidity. It is applied in two or three coatings by squeegee, depending on the desired thickness. The next layer follows the other after the previous starts to dry. Consumption: 1,5 – 1,6 kg/m<sup>2</sup> (three layers)
- The next day, depending ambient temperature follows application of finishing paint **POLYSPORT 952** in 2 crossing layers by a short-haired mohair roller or even better by airless sprayer. Consumption: 0,35 kg per square meter in 2 layers.

## Important Remarks

- ✓ During temperatures over 40 degrees, ideal time for the application of **POLYFLEX AEL-IN SYSTEM** is between 22:00 and 09:00 and the minimum bearing temperature during application and drying should be over 10°C.
- ✓ In case the second layer of PU top coat is applied after more than 24 hours of the application of the first one then the whole surface must be sanded by a special sanding machine. After that the second layer can be applied.

- ✓ 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.**

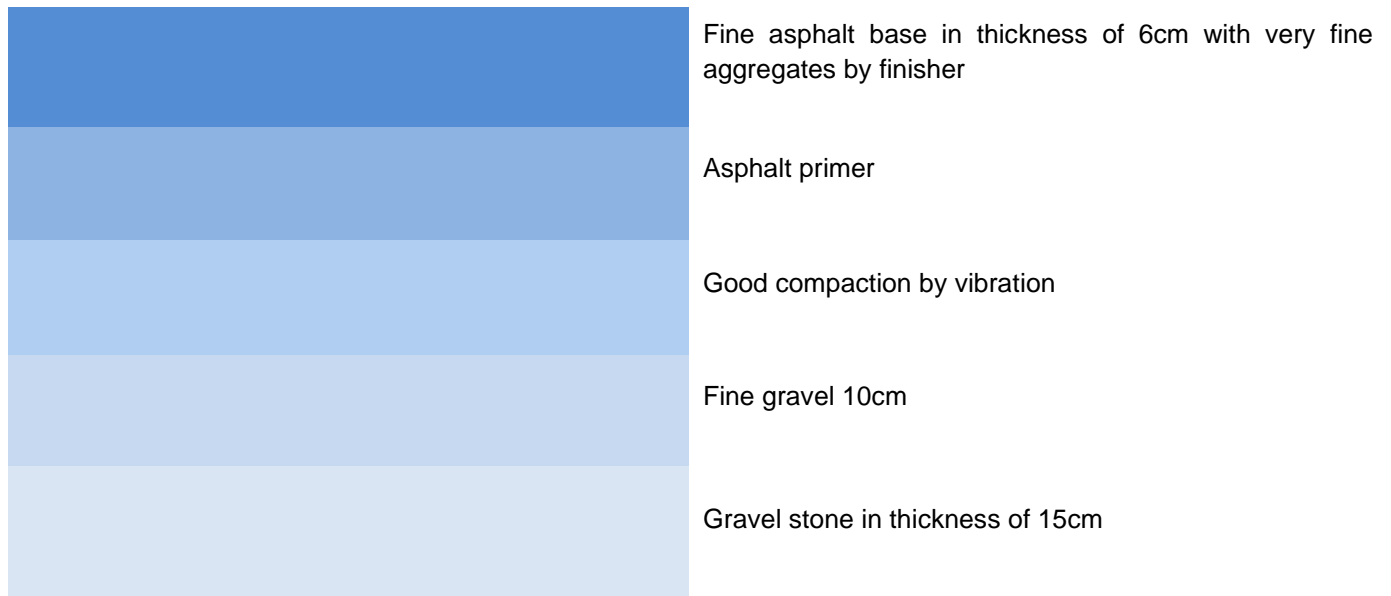
### **A. Asphalt Substrate**

**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



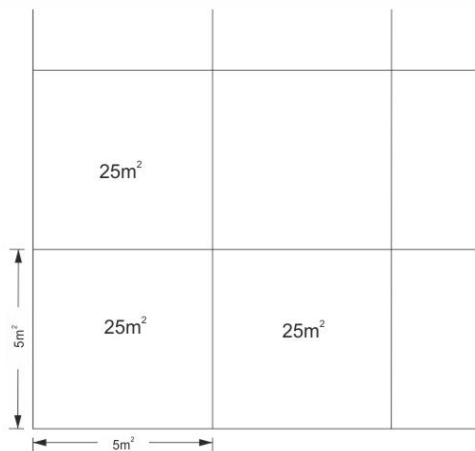
## B. Concrete Surface

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.



## Substrate requirements

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:



V-notch trowel



Squeegee



sandpaper machine



roller



airless sprayer

KDF - Kataskeves Dapedon LTD  
e : exports@kdf.gr w : www.kdf.gr

Showroom Office  
19<sup>th</sup> km National Road Thessaloniki-Moudania  
57001, Neo Rysio, Thessaloniki, Greece  
t / f : +30 2310 829598

Accounting Office  
19 Mitropoleos Str  
54624, Thessaloniki, Greece

