

SYSTEM POLYFLEX AEL – EX

Total thickness of 6mm – 14mm

Classified by I.T.F. - International Tennis Federation



Outdoor highly flexible, acrylic system, ideal for tennis, basketball, volleyball, handball, football, multipurpose courts, as well as any other outdoor sports court.

Combination of prefabricated shock-pads and acrylic coatings in average total thickness of 6mm up to 14mm.

Classified system by the International Tennis Federation (I.T.F) - Class 2.

Steps:

1. **PU FLEX 140 – Special, polyurethane, two components, adhesive.** Used for the application of **ISOPOL 854** shock-pad in rolls or other prefabricated shock-absorbent rolls made from recycled rubber or EPDM granules. Applied with a V-notched trowel with 3mm notches.
2. **ISOPOL 854 – Shock-pad in rolls.** Elastic, prefabricated shock-pad made of recycled rubber granules providing shock-absorbency, in thickness of 4mm up to 12mm. Used as cushion substrate before the application of polyurethane or acrylic systems.
3. **ELASTOTURF 851 - Acrylic, elastic, slip resistant coating for sports floors systems.** Consists of acrylic resins, quartz sand and special improver. It is combined with **ISOPOL 854** as substrate to create multipurpose sports flooring systems. Highly resistant to adverse weather conditions (snow, frost, heat waves etc.) after drying. Applied by squeegee in 3 layers at least.

Preparation – Application

Applied only on dry asphalt and concrete surfaces (over 30 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 3mm notches. Consumption: 1kg/m².
- 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 3mm notches 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 the ambient temperature **ELASTOTURF 851** is diluted with up to 10% water prior to application, to achieve better fluidity. It is applied in three or more coatings by squeegee, depending on the desired thickness. The next layer follows the other after the previous starts to dry.
Consumption: 2.2-2.5kg/m² for 3 layers.

Important Remarks

- ✓ During temperatures over 40 degrees, ideal time for the application of **POLYFLEX AEL-EX SYSTEM** 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.

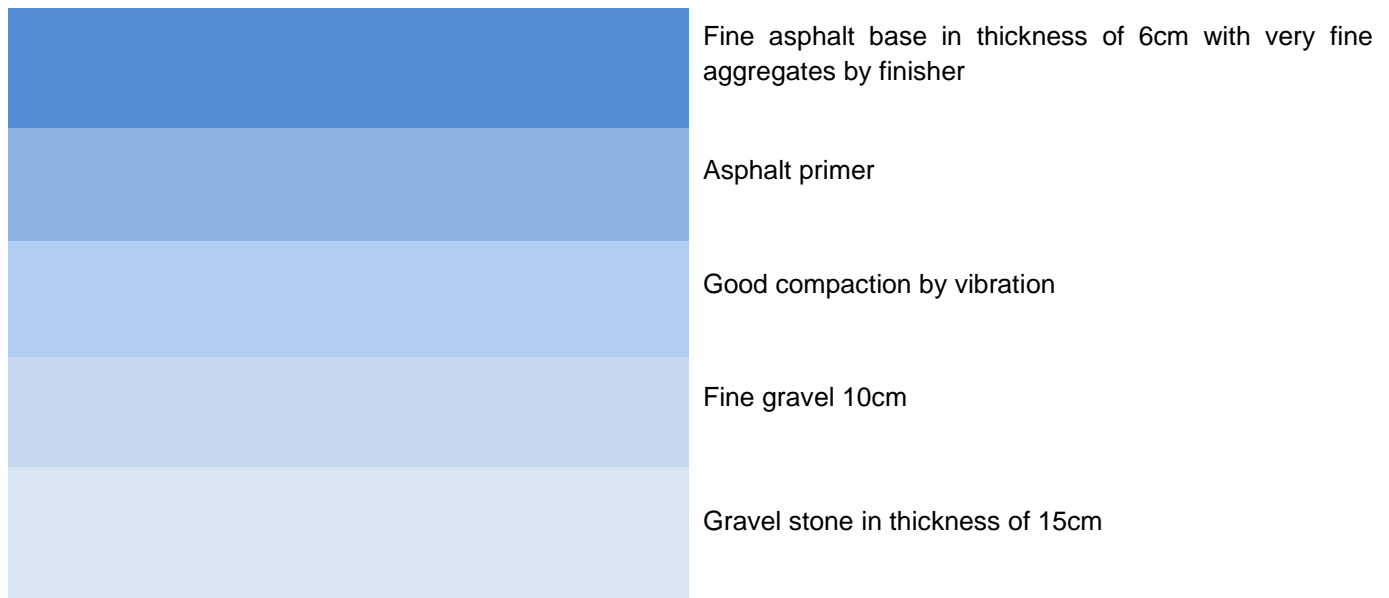
A. Asphalt Substrate

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



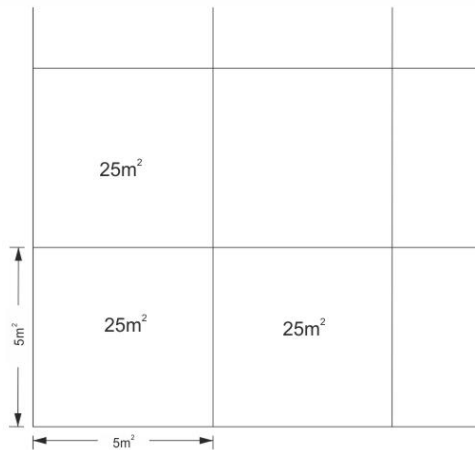
B. Concrete Surface

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.



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: For the application of the system you will need: V-notched trowel, squeegee and a sandpaper machine.



V-notch trowel



sandpaper machine



Squeegee

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