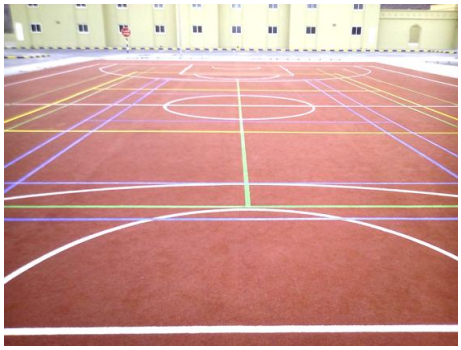
SYSTEM POLYFLEX AEL – EX-R

Total thickness of 6mm – 14mm

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



Outdoor highly flexible, acrylic system ideal for tennis, basketball, volleyball, handball, multipurpose courts, as well as any other outdoor sports court. Combination of prefabricated shock-pad and acrylic coating in average total thickness of 6 mm – 14mm.

Steps :

1. **PU FLEX 140 – Special, polyurethane, two component, adhesive.** It is applied with a V-notch trowel, 2mm, on dry waterproof surfaces of concrete, without rising humidity issues, or smooth, asphalt surfaces. Used for the application of ISOPOL 854 shock-pad in rolls or other prefabricated shock-absorbent rolls made from recycled rubber or EPDM granules.
2. **ISOPOL 854 – Shock-pad in rolls.** Elastic, prefabricated shock-pad made of recycled rubber granules providing shock-absorbency, in thickness of 4mm up to12mm. Used as cushion substrate before the application of polyurethane or acrylic systems.
3. **ELASTOTURF 851 CON/F - Acrylic, concentrated, elastic, flexible, slip-resistant, coating for sports floors systems. To be mixed with silica sand.** It is combined with ELASTOSPORT 853 or wet-pour mixture of SBR granules or shock-pad rolls 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.

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 2mm teeth. 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 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.
- Follows the application of **ELASTOTURF 851 CON/F in at least 2 crossing layers,** mixed with quartz sand and water, in ratio of 1,5 part of **ELASTOTURF 851-CON/F** (42,85%), 1,5 parts of quartz sand (42,85%) and 0.5 parts of water (14.3%) by weight. It is applied in 2mm total thickness, in two or three coatings by squeegee, depending on the desired thickness. The next layer follows the other after the previous starts to dry. After the application of the first layer and when it has already dry we use a sanding machine on the whole surface and then apply the next layer. Consumption : 2,5 kg/m^2 for 3 layers, as the final product **ELASTOTURF 851**.

Important Remarks

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

Showroom Office
1 Papanikolaou Ave, Pefka
57010, Thessaloniki, Greece
t / f : 0030 2310 829598
Accounting Office
19 Mitropoleos Str
54624, Thessaloniki, Greece

Substrate

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

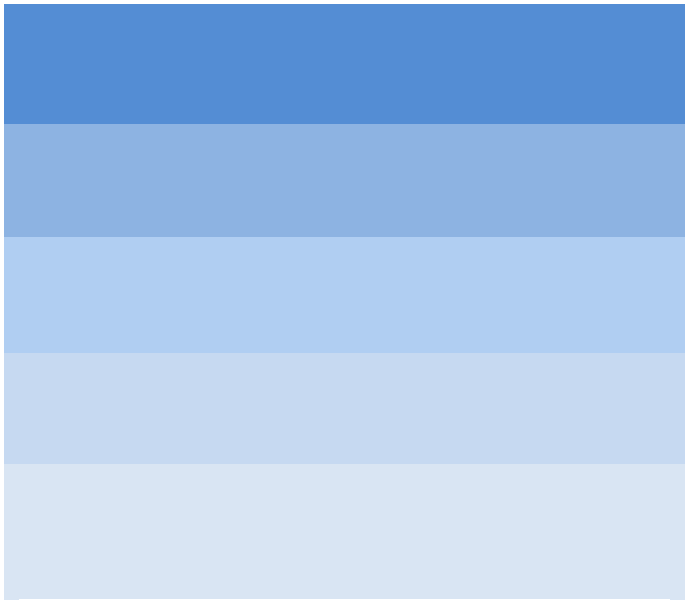
A. Asphalt Substrate

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



Fine asphalt base in thickness of 6cm with very fine aggregates by finisher

Asphalt primer

Good compaction by vibration

Fine gravel 10cm

Gravel stone in thickness of 15cm

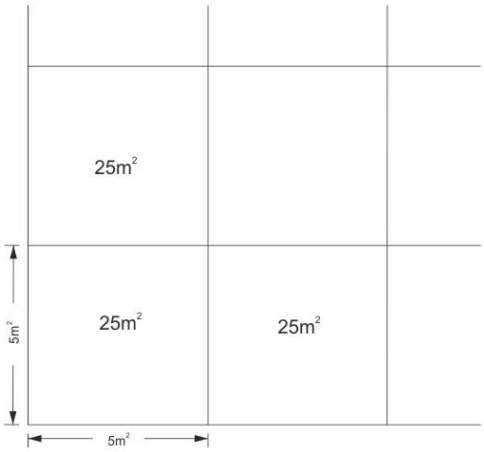
B. Concrete Surface

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%

Tools:

Colors: Following colorchart.

This is a classified system by I.T.F. - International Tennis Federation.

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

Showroom Office
1 Papanikolaou Ave, Pefka
57010, Thessaloniki, Greece
t / f : 0030 2310 829598
Accounting Office
19 Mitropoleos Str
54624, Thessaloniki, Greece

KDF

Sports Flooring Systems & Building Materials

50 YEARS OF EXPERIENCE

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

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

Showroom Office
1 Papanikolaou Ave, Pefka
57010, Thessaloniki, Greece
t / f : 0030 2310 829598
Accounting Office
19 Mitropoleos Str
54624, Thessaloniki, Greece

KDF

Sports Flooring Systems & Building Materials

50 YEARS OF EXPERIENCE

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

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

Showroom Office
1 Papanikolaou Ave, Pefka
57010, Thessaloniki, Greece
t / f : 0030 2310 829598
Accounting Office
19 Mitropoleos Str
54624, Thessaloniki, Greece