

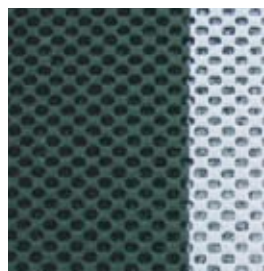
## Porous Kushion Kourt - General



Porous Kushion Kourt - A unique and innovative solution that allows tournament quality play throughout the year. "American" acrylic surfaces have long been the choice of the LTA, but standing water has to be removed after rain. Porous Kushion Kourt uniquely offers the same playing characteristics and is totally free draining.

It is comfortable to play on and is kind to the body thus significantly reducing fatigue, increasing relaxation, and encouraging longer playing time. The even textured surface is responsive to spin and provides a true and consistent bounce. The slip resistant texture gives excellent foot grip and the medium pace can be adjusted to suit particular needs.

- EASY TO USE : Play straight after rain. No puddles. No drying aids. Use all year round.
- EASY TO PLAY : Authentic acrylic play. True acrylic bounce, spin and pace.
- EASY ON THE BODY : Truly shock absorbing, equivalent to 12 layers of cushioning.
- EASY TO MAINTAIN : No weekly or monthly maintenance. Minimal annual maintenance.
- EASY ON THE POCKET : Capital costs reduced. Running costs minimal. No downtime.
- EASY TO BUILD : Faster installation time. Simple conversion of existing courts.
- EASY TO CHANGE : Easily changed to EasiClay, all weather clay courts (or back again).
- EASY TO CHOOSE : Unique versatility means you don't have to make an irrevocable choice.
- EASY ON THE EYE : Wide choice of natural or designer colours.



*'a world of knowledge'*

## Porous Kushion Kourt - Case History



### CONVERSION OF AN OLD POROUS CONCRETE COURT NEAR ZOETERWOUDE, NETHERLANDS

The accompanying photographs show the stages of conversion of a battered old concrete court to a Porous Kushion Kourt early in 1998.

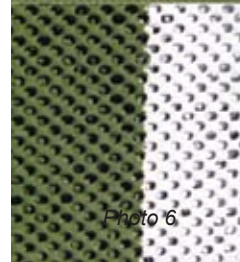
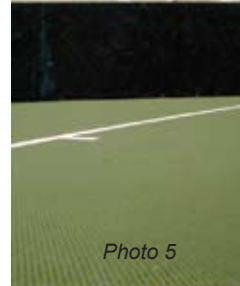
The old court consisted of 36 concrete slabs some of which had been displaced horizontally and vertically and some of which had cracked (photos 1 & 2). The clients budget did not allow for full reconstruction or even an asphalt overlay to even up the surface. The preparatory work consisted of thoroughly power washing the old concrete to remove dirt and enhance porosity. Construction joints and cracks were cleaned out and filled with mastic sealant. Where vertical movement had occurred, the difference of levels was smoothed out with epoxy patching compound (photo 3).

After spraying the prepared base with polyurethane glue, the SST Sultan Green mat was rolled out in 3.66 m widths and lightly rolled to aid adhesion (photo 4). Seams were sealed with a polymer compound and the special anti-slip paint coating applied by sprayer. Photo 5 shows the finished surface and photo 6 shows a life size close up.

The clients son is a Dutch teenage prodigy and can now enjoy high level tennis with significant cushioning on what effectively was previously a concrete back yard.

Typically for Holland the court is in a low lying area with water never far from the surface. A harsh spell of weather last winter led to frost heave and reopened a large crack in the concrete base at the edge of the court (photo 1) to a width of 15 mm and also displaced it vertically by 10 mm. The Porous Kushion Kourt mat has stretched to accommodate the movement without any cracking and has remained firmly glued to the concrete at either side of the crack and throughout the court.

The Porous Kushion Kourt surface is absolutely as good as new and, although obviously not as heavily used as a club court, has withstood climatic conditions and ground movements as severe as any court will ever face.



*'a world of knowledge'*

## Porous Kushion Kourt - Technical Data Sheet



### 1. Description

- Porous Kushion Kourt is a free draining, cushioned tennis surface with the play characteristics typical of acrylic hard courts. It is formed by gluing a fibre reinforced PVC mesh onto a porous base and colour spraying with special anti-slip coatings.

### 2. Base Requirements

- The base should be porous asphalt with a nominal aggregate size of 6 or 10 mm. It should be laid on a suitable foundation in accordance with the Code of Practice for Construction and Maintenance of Tennis Courts published by SAPCA (Sports & Play Constructors Association) or similar by local authorities.

- The maximum gradient should be 1:120 (depending on local authorities).

- The surface should be thoroughly clean and free from contamination, weeds or moss.

- Existing porous courts may be used as long as the base is sound, free draining and meets the above requirements.

### 3. Product Composition / Work Description

- The basis of the Porous Kushion Kourt system is the SST/Green mat, which consists of a heavy-duty dense PVC foam with an open grid and crossed woven thread.

- There are approximately 35.000 openings per square metre in the mat each of approximate dimensions 4 mm x 3 mm. There are a similar number of slightly larger PVC 'pillows', which form the cushioned playing surface.

- The SST/Green mat is delivered in 2.7 metres wide rolls and is fixed to the base with a special 2 pack polyurethane glue using spray techniques. Seams are sealed with a polymer jointing compound.

- After curing the surface is sprayed with a specifically designed water based two pack anti-slip sport coating. Play lines are sprayed using masking tape for clean definition.

### 4. Durability / Wear Characteristics

#### Paint Coating

- The topcoating contains minute aggregate particles, which provide grip and affect the pace of the court. As with all coated surfaces, the paint coating will become smoother on high wear areas and merits renewing within 3 to 5 years to maintain optimum performance.

- The paint coating has also a dual function of protecting the PVC mat and should definitely be renewed by the next stage of wear (i.e. if it is worn through to the mat).

#### SST/Green Mat

- The fibre reinforcement in the mat gives it a very high tensile strength together with an ability to stretch (e.g. to absorb cracks in the base without rupturing). The PVC itself is extremely resilient to wear. In any given minute proportion of the individual 'pillows' (less than 1 in 10,000) may be expected to wear up to ½ of a millimetre but this will have no impact on the performance or structural integrity of the mat. Cuts and tears in the mat are quite rare and are usually caused by accidental damage or misuse (e.g. racquet abuse).

#### Polyurethane Glue / Asphalt Base

- The polyurethane glue is a tried and tested method of fixing PVC mats to asphalt bases and will last virtually indefinitely. The porous asphalt base has a normal lifespan of approximately 10 years but the effect of the polyurethane glue and the protection of the PVC mat should significantly extend this.

- Any minor repairs that are required can be attended to as part of our annual maintenance schedule.

*'a world of knowledge'*

## Porous Kushion Kourt - Aftercare Recommendations



We recommend that you follow these guidelines to maximise the effective life of your Porous Kushion Kourt:

### 1. Keep The Surface Clean

- Remove leaves and other debris from the surface – do not allow them to build up or rot.
- A garden vacuum cleaner may be useful in this – we will be pleased to advise.
- Wash the court regularly using hosed water and a mild cold water detergent.
- Apply Mosstox or equivalent moss killer twice annually or as often as necessary – usually before and after winter (test a small area first for staining).

### 2. Bird Droppings

- Immediately remove from surface by hosing / soft brooming.
- Remedy by cutting back overhanging branches.

### 3. Equipment

- Umpires chairs, seats etc. should not be placed directly onto the surface. If done so, the point loading may result in the item sinking into the surface. Prior to situating any such item on the surface, suitable protection should be applied first to spread the loading, e.g. timber etc.

### 4. Perimeter Fencing

- The fence should be checked periodically for line wire tension. The wire should be taut but still allow some vertical movement. Over-tightening of the line wire may result in damage/breaking of the wire. To tighten the line wire the external nut of the barrel winder located at each corner/gate post should be loosened the the wire tensioned by turning the barrel bolt until suitable tension is reached. The barrel may then be locked by tightening the external nut, maintaining the barrel tension at the same time. Tighten one line wire at a time and from both ends. Do not attempt to put full tension into the wire from one end.

### 5. Tennis Net Posts & Nets

- When the courts are not in use the tension within the tennis net should be released. This will help prevent premature stretching of the retaining cable. Before play the net should be tensioned to give a central height of 91.4 cm. Also ensure that the centre brass swivel is free to move within its ground socket. Failure to do so can result in the swivel breaking during play. The winding mechanism and sockets should be occasionally greased to ensure smooth and quiet operation.

### 6. General

- Cigarettes, chewing gum, petrol oil, solvents etc. should NEVER touch the court surface as they will cause damage.

### 7. Snow & Ice

- Remove soft (powdered) snow with a soft broom. NEVER use metal shovels, scrapers, mechanical snow removing equipment, salt, urea and other chemical de-icing agents.

### 8. Weeds

- Keep clear of vegetation an area of at least half a meter around the external perimeter of the court
- Care should be taken to restrict the growth of any vegetation with invasive root systems to an appropriate distance away from the court.
- Even after the application of weedkiller during construction there may be some subsequent growth. Treat weed growth immediately by applying a spot weedkiller (systemic) and allowing the weed to die.

### 9. Shoes

- Training shoes and other shoes with bars, studs or sharp edges on the soles should not be used.
- Avoid shoes with black soles.

### 10. Annual Maintenance

- Please refer to our Annual Maintenance Contract / Schedule of Works.

### 11. Damage

- Please report any significant damage to us so that we can advise appropriate action.

Sports Surfaces Technologies will be pleased to assist you with any further advice that you feel you may need.

*'a world of knowledge'*

## Porous Kushion Kourt - References in the Netherlands



2006	TC Metslawier EO, Metslawier	3 banen	2002	ZTC, Zoeterwoude	4 banen
	TC Usquert, Usquert	2 banen		TV Wilnis	2 banen
	TV Vreeswijk, Nieuwegein	4 banen		L'air Pur, Baarle Nassau	2 banen
	Privé baan, Weert	1 baan		TV De Mepsche, Niekerk	2 banen
	Privé baan, Laren	1 baan		SV Laren '99, Laren	6 banen
	Privé baan, Vreeland	1 baan		Privé baan, Lemele	1 baan
	Privé baan, Wassenaar	1 baan		Privé baan, St Ferme, Frankrijk	1 baan
2005	HV Dios, Den Hoorn, handbalveld	2 banen	2001	TV Quintus, Kwintsheul	4 banen
	Health City, Toolenburg	2 banen		TV TOEG, Rotterdam	7 banen
	TV Buytenwegh, Zoetermeer	2 banen		TV Sunlight, Vlaardingen	3 banen
	België	4 banen		Privé baan, Velp	1 baan
	TC EE, Ee	2 banen		Privé baan, Naaldwijk	1 baan
	T.V. Starlight, Leidschendam	8 banen		Privé baan, Veere	1 baan
	Privé baan, Wekerom	1 baan		Privé baan, Laren	1 baan
	Privé baan, Arnhem	1 baan	2000	T.V. De Hichte, Haulerwijk	3 banen
2004	Amstelpark, Amsterdam	12 banen		T. V. It Akkerlan, Garijp	2 banen
	Camping 't Oekeltje, Rijsbergen	1 baan		TV AC, Ottoland	2 banen
	Privé baan, Ulvenhout	1 baan		LTC Zelhem, Zelhem	5 banen
	Privé baan, Vinkeveen	1 baan		Tennis Centrum Charlois, Rotterdam	11 banen
	Privé baan, Bloemendaal	1 baan	1999	T.V. De Kooistee, Hellevoetsluis	8 banen
	TV Meerburg	4 banen		T.V. Eemnes, Eemnes	6 banen
2003	Arnolduspark, Hoofddorp	9 banen		Privé baan, Terschuur	1 baan
	TV Benschop, Benschop	4 banen		Privé baan, Hattum	1 baan
	TC Westerschouwen, Burgh-Haamstede	3 banen	1998	Privé baan, Stompwijk	1 baan
	TC Dokkumer Walden, Damwoude	4 banen			
	Privé baan, Eindhoven	1 baan			
	Residence "De Karpen", Eindhoven	1 baan			
	Dalen	2 banen			
			Totaal		150 banen

*'a world of knowledge'*