

BUILDING AN ASPHALT COURT

A porous asphalt tennis court is made up of several layers of aggregate, often limestone, bound together with bitumen. Finer grades of aggregate are used closer to the top surface.

Foundation Layer

The foundation provides support for the layers of porous asphalt and allows water to drain away from the surface of the court. If water is held in the sub-surface frost can cause the court to heave. Loosely packed stones will provide better drainage, but reduced stability.



Hand-Laying

Porous asphalt courts are typically laid by hand. Hot bituminous asphalt is raked between steel bars and then rolled to compact the aggregate. The steel bars are set using dual-plane, laser levels for accuracy. If there is a sufficiently stable formation or depth of foundation, laser-automated machines can be employed to lay the asphalt.



Rolling

The asphalt must be rolled immediately to compact the aggregate before the bitumen cools. Therefore, thicker layers, which take longer to cool, can be used to give higher densities.



Top Layer

The wearing course (top layer) uses the finest grade of aggregate to achieve a dense, uniform surface. During the opening season of play, hot weather may soften the bitumen and aggregate can be 'plucked' out of the wearing course. It is important that the court is not used under these conditions.



Finishing

After three weeks, the bitumen has dried and hardened and the court can be painted. Pre-spraying the court with a polyurethane (PU) or acrylic (PMMA) binder extends the life of the surface and reduces stone plucking. PU or PMMA are also used within the paint. The colour coating is applied in at least two passes in opposite directions.

