



Cracking of Asphalt Tennis Courts

The most common problem with asphalt tennis courts is pavement cracking. Cracking in asphalt is caused, at least in part, by the natural tendency of asphalt to shrink as it weathers, oxidizes and ages. In addition, asphalt loses its flexibility as it ages, making it more brittle. Since shrinking and becoming more brittle with age are properties of the material, cracking in asphalt tennis courts is inevitable.

Quality design and construction can minimize or delay cracking but cannot eliminate it. Once cracking begins, no matter which method is used for repair, generally, the cracks will reappear.

There are many types of asphalt cracks. Surface cracks include hairline cracks (small irregular cracks present over large areas of the court), alligator cracks (a pattern of interlocking cracks over the surface resembling an alligator hide) and shrinkage cracks (a random pattern of interconnected cracks with irregular angles and sharp corners). In most cases, surface cracks do not affect the play of the game; however, if untreated, they will develop into more serious cracks and will require more extensive repair.

Pavement cracks include heat checking (a hairline crack pattern which follows the direction of rolling), structural cracks (large cracks which penetrate the asphalt pavement), reflection cracks (which occur in asphalt surface overlays and mirror a crack pattern in the pavement underneath), radial cracks (which appear at the point where the concrete net post, light pole or fence post footings meet the asphalt court surface) and settlement cracks (which result from paving over a poorly compacted or poorly drained subbase).

There are at least four methods of crack repair - crack filler, infrared patching, a proprietary fabric repair system and full depth repair with either crack filler or hot mix asphalt. Repairing many cracks may leave the court with an unattractive, freckled appearance; however, resurfacing will correct this unsightly condition.

Because there are various causes of cracking, differences in sizes and numbers of cracks, and various options for crack repair, an owner would be wise to consult an experienced contractor or design professional to determine the best options for repair. It is important to note, however, that eventually cracks will reappear or new cracks will form. All methods of repair will provide some additional life for the court and some methods will extend the useful life of the court by many years, but if the owner is seeking a long term solution, the court should be reconstructed.

Differences in site, weather and soil conditions require variations in construction and repair methods and materials. Readers are advised to consult a qualified contractor or design professional before undertaking construction or repair of a court. Rev. 01/04