

To Wax, Or Not To Wax

That is the big question, the answer to which is of great concern to all shufflers. We all know that many shuffleboard courts are faster in the center than along the sides, that weather conditions change the speed of a court, that a dusty wind can immediately change a court, and that the lines have a tendency to stop a block.

About five years ago, I built an extra room on our house, to be fitted up as a laboratory. My initial objective was to develop some special varieties of light weight concrete, in which field I have had considerable experience. That led to experiments to determine what kind of concrete, and surface treatments, would be better for shuffleboard courts. In no time at all, I was really up to my neck in this work which to me is tremendously interesting.

Of course, the first and obvious thing to do was to investigate waxes. So, I got samples from many manufacturers and suppliers, with their various claims of superiority, most of which were without any basis in fact. I rigged up tests to find out how slippery waxes were, how much solid wax there was in a gallon, how hard was the wax, how much was the wax softened and made tacky by the Florida sun, etc., etc. It was not difficult to test these in the laboratory, but how to test a waxed court for speed, was a problem. I finally used a spring gun, which propelled a standard disk down the court, and used the length of travel to determine the speed, or coefficient of friction of the court. This gun became quite well known in shuffling circles, and I had to take quite a bit of kidding whenever I made any tests.

This gun has now been superseded, and we now have an instrument that is quite accurate, and which further, can be duplicated by other experimenters, or those interested. I got talking with Chris Lotz last year, and showed him my gun, and as an engineer, and quite an expert in springs, he offered to make a testing machine, which he did; and I am very grateful to him for a good job. This tester gives us a quantitative instrument, quite accurate, so that we can now rate any court on its slickness, or coefficient of friction.

After many, many tests with waxes, I did submit a report to the National Shuffleboard Association, of which I had become Technical Consultant. In brief, the report accentuated the importance of frequent cleanings of a waxed court with a detergent, and in general, recommended emulsion waxes as more convenient to use than solvent waxes.

About two or three years ago, I started to experiment with the kind of concrete that would make better courts. I found that the top surface of many courts contained sharp sand or aggregate, and that these presented cutting edges on the bottom of the blocks, which of course slowed the blocks. The thought occurred to me that rounded sand or aggregate should be investigated.

In the course of my business experience, I was manager of a factory, one of whose products was mineral wool. A by-product of mineral wool, is the so called "shot", which is screened out, and

practically thrown out. A good percentage of this shot consists of beads more or less round in shape, and so I obtained a quantity of this from the factory, and started work. I incorporated these beads into a top coat of concrete on small samples, and to my surprise found that the coefficient of friction was 25% to 35% less than the best kind of ordinary concrete with a waxed surface.

Well, what to do to make use of this discovery. It would be difficult to put new topcoats on the existing courts, so I had to try to find some method of putting glass beads on existing courts, something that would be weather-resisting, that would hold the beads in place, that would not cost too much, and be comparatively easy to apply. And this binder for the beads also had to be clear, otherwise the lines on the court would need to be gone over.

Shellac was tried, and found wanting. One large manufacturer even sent me (at my request) some special clear Latex emulsion, made especially for my tests, and this was also not good enough. The best material at a reasonable cost, I found to be poly-urethane varnish. Our No. 12 court at Hendersonville, and a court at Parris Trailer Park (our summer home) indicate that a treatment of firmly imbedded glass beads using poly-urethane varnish, properly applied, will last for two seasons or more.

The cost of this treatment per court is about \$9.00, and provides a fast court, quite uniform at center or sides, with lines below the beads, so that they do not hold up the blocks, and also the court is very resistant to weather conditions, including moisture and dust. We now have four more courts of this kind at Hendersonville, and will do two more.

Next to immovably imbedded glass beads, my carefully considered opinion from experiments, and observations, especially of Mirror Lake courts, indicate that loose glass beads, properly applied, offer faster courts, less sensitive to moisture and dust, than waxed courts, and at less cost and labor.

One more experiment that may be of great interest to all shufflers, and this is an effort to correct an out-of-level court, by putting on a top coat of from 3/8" to 3/4" in thickness. We have just finished doing one court at Hendersonville, and we think quite successfully. The cost for materials is less than \$35.00, and the method involved is one that I have used in industry for the past twenty years. It is of course obvious that an additional virtue of a light coat (aside from the low cost) is that this method does not make deep gutters, etc. At Hendersonville, we did this job with our own men, having bought the concrete from a ready mix company. I hope to be able to write this up in detail, in mimeographed sheets, for distribution.

Yours hopefully, for better courts,
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