

Lane Surface Task Force lays foundation for future research

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The **United States Bowling Congress and Manufacturer Lane Surface Task Force** has laid groundwork for future research of synthetic bowling lane surfaces that are used in USBC certified competition. The group's overall goal is to help ensure that league and tournament play is fair for all USBC bowlers.

The task force, which is comprised of synthetic bowling lane manufacturers and USBC research representatives, recently discussed the research of lane surfaces for roughness and the materials used in their production.

USBC research engineers would use an instrument called a "profilometer" to research surface roughness variations. A Fourier Transform Infrared Spectrometer - an optical instrument with a computer interface - would be used to analyze the materials used in the production of the top portion of synthetic lanes.

Any research would be completed on agreed upon 42 X 42-inch lane sample pieces which manufacturers will send to USBC.

The task force also has defined its purpose, which is to obtain a better understanding of lane surfaces and how they affect bowling ball motion and scoring.

Dennis Sheirs, task force member and **Kegel** Vice President Chemical Division, said discussions about those topics at the group's first meeting Nov. 17 at USBC Headquarters in Greendale, Wis., were positive.

"I thought everyone in attendance at the meeting had good input and did a good job of supporting their opinions and viewpoints," said Sheirs. Other lane manufacturer task force members at the meeting were: **Cesare Lancellotti, Switch; Neil Pennington, QubicaAMF Worldwide;** and **Troy Recknagel, Brunswick.**

"I would like to see some uniformity to the playing surface and a standard to measure and

test with," Sheirs said. "I would like to see the USBC set testing standards that can be used by all manufacturers and help the bowling centers when evaluating information on a product."

The task force will work cooperatively to discuss possible research and testing of synthetic lane surfaces in an effort to standardize the production of lane surfaces, which ultimately benefits bowlers and the sport.

"I see the objective of the task force as a way for USBC and the bowling equipment manufacturers to work together to understand what testing and regulations need to apply to USBC-approved equipment in order to better preserve the integrity of the sport of bowling rather than USBC just developing regulations in a vacuum," Pennington said.

"The formation of this task force is another important step in maintaining credibility in the sport of bowling," said **USBC Technical Director Neil Stremmel**, who along with senior technician **Dave Sprager** represents USBC on the task force. "USBC is teaming up with key players in the bowling industry to form this task force and make this happen. USBC may add or change specifications if the research concludes that a change or addition is necessary."

Also at the meeting, Stremmel and Sprager demonstrated USBC's testing process for synthetic lane surface hardness. For the test, USBC research engineers use a Gardner/Sward Hardness Rocker, a metal wheel-shaped device four inches in diameter which is used to test hardness of production materials in various manufacturing industries. In this case the device rolls back and forth on a lane sample. The cycles are electronically determined and registered on a liquid crystal display monitor to obtain a hardness reading.

Samples submitted and tested in that manner must meet the USBC specification for hardness of a synthetic lane surface, which is a minimum Sward Hardness reading of 35. Sward Hardness testing is a standardized procedure with ASTM International, an organization that develops technical standards for a wide range of materials, products, systems and services.

That specification is a result of a new test procedure which analyzes surface friction and bowling ball footprint size in the readings. A Gauge R & R study, a statistical method recommended by the American Society for Quality, was used to determine the minimum

limits.

It was the first time USBC or its predecessor organizations developed a specification for the hardness, friction or footprint of a lane surface.