



URETHANE HARDNESS FAQs

Update/Addition May 2024...

Q: What bowling balls can I use in all Regional, PBA50 and PBA Jr. competition?

A: As stated on page 38 of the PBA Rulebook, "Only Equipment registered, certified and listed on PBA.com will be allowed in any PBA Tour event." To further clarify, all bowling balls that are approved for use in ALL levels of PBA tour competition are listed under the specific ball brand on the Registered Products page of PBA.com. If a bowling ball is not listed on that page, it is not cleared for use in ANY level of PBA tour competition. To access this page, go to PBA.com > Player Resources > Registered Products. Click on the specific bowling ball brand and then look for the name of the ball that is in question.

Q: What new rules were implemented as part of the release of this report?

A: There are two new rules, both related to bowling ball hardness.

1. The first rule is that all urethane and urethane-like bowling balls must be manufactured at a minimum of 78.0HD. This rule is for all levels of PBA Tour competition, but not recreational amateur league bowling or PBA League Bowler Certification tournaments.
2. The second rule is that ALL balls to be used on the PBA National Tour ONLY, must be manufactured on or after August 1, 2022, commensurate with the USBC's implementation date of its rule raising the requirement of all balls be manufactured at a minimum of 73.0HD (up from previous USBC rule of 72.0HD).

Q: When do these new rules go into effect?

A: January 6, 2024. Pre-existing rules remain in effect for the remainder of the 2023 season on all Tours and in all PBA competition. The January 6, 2024, implementation date allows for the Regional Players Invitational, which is a continuation of the 2023 season and concludes Jan. 5, 2024, to be contested under existing rules.

Q: What levels of competition are affected by these new rules?

A: The new minimum hardness rule for urethane-like balls is only for PBA tours – PBA National Tour, PBA Regional Tour, PBA50 Tour, PBA50 Regional Tour and PBA Jr Tour. The new rule that ALL balls must be made on or after August 1, 2022 is ONLY for the PBA National Tour.

Q: Why is the PBA implementing these rules?

A: As discussed in the 2023 PBA Hardness Report (<https://www.pba.com/2023/june/2023-pba-hardness-report>), urethane and urethane-like bowling balls for more than one brand were found to be significantly below the minimum hardness while in competition and during laboratory testing. The PBA feels this is key to our level of competition and therefore, looked at numerous options to rectify the situation. Raising the hardness of these types of bowling balls (urethane and urethane-like) by 5

points at manufacturing will give us the confidence that they will maintain a level of hardness above the minimum level of 73.0HD. Field testing will still continue to be conducted in the future to verify this assumption. Additionally, changing the manufacturing date of all balls in use on the 2024 PBA National Tour will ensure that all balls are manufactured at, and stay above, the minimum hardness of 73.0HD.

Q: How will these rules be enforced?

A: The PBA will work with the manufacturers to ensure new urethane and urethane-like equipment is manufactured at the 78.0HD minimum. Balls will be tested a variety of ways – from the factory, out of the box at distributors, pro-shops, on the PBA Player Services Trailer, and in the field during PBA Tour competitions. Additionally, all balls will be verified to have been manufactured via serial number inspections and ball card checks.

Q: Do all my urethane balls all need to be replaced now?

A: The rule goes into effect on January 6, 2024.

The urethane and urethane-like rule is only for the PBA Tours: National Tour, Regional Tour, PBA50 Tours and the PBA Jr. competition Tour. Regular leagues and tournaments are not affected.

Q: Do I need to replace all my balls if they haven't been made since 8/1/22?

A: For any PBA Tour competition, all Urethane-like balls will need to be made at a minimum of 78.0HD. For the PBA National Tour only, they will need to be made on/after 8/1/22.

Q: Which balls will have to be made on or after August 1, 2022?

A: For the PBA National Tour ONLY, balls eligible for competition must be made on or after August 1, 2022. This will ensure that all (non-urethane) balls are made at a minimum hardness of 73.0HD.

Q: How can I tell if my reactive ball was manufactured on or after August 1, 2022?

A: There is a serial number guide on PBA.com, [which is available here.](#)

Q: What does "78.0HD" mean?

A: The number 78.0 indicates the average hardness value as measured on a durometer, which is the standard measuring device. HD stands for Hardness reading on a type D durometer.

Q: What is a durometer?

A: The Durometer is the international standard for the hardness measurement of rubber, plastic and other non-metallic materials. Durometers are described in the American Society for Testing and Material specification ASTM D2240, which is the recognized specification for the instrument and test procedures. The type D durometer has been used as the standard in bowling for 50 years.

Q: How do we know the durometer testing in the report was properly conducted?

A: The PBA has multiple durometers and they have all been calibrated annually by Rex, the gauge manufacturer. Additionally, a gauge R&R test was conducted on the PBA durometers to ensure they are

reliable and repeatable, within tolerance and suitable for this type of specification testing. As noted above, the durometer has been the standard for hardness of bowling balls for 50 years.

Q: If I just purchased new urethane balls, for the PBA Regional (or other) tour, do I have to replace them all?

A: Those balls are still eligible for the remainder of the 2023 season. Then, urethane and urethane-like balls will need to be made at a minimum of 78.0HD. The balls you purchased will still be allowed in non-PBA tour events (such as USBC and PBA LBC leagues and tournaments).

Q: How will urethane or urethane-like be determined?

A: Urethane-like will be determined by conducting an oil absorption test. Any ball that takes 45 minutes or more for a drop of oil to be absorbed will be considered urethane-like and be required to be manufactured at a minimum of 78.0HD. The main reason for the urethane-like implementation is to make sure all balls that get softer with use start at a higher hardness. Balls that have not been observed to get softer with use or time will not fall in this category, but all balls will be observed in the future and field tested to verify they do not drop below the minimum hardness.

Q: Does bowling ball hardness really matter?

A: To the PBA, it matters. It is a rule that was put in place for a reason. In the early 70's, balls were being soaked in chemicals making them softer, which obviously gave players an advantage at the time. Since the rule was put into place about 50 years ago, it has rarely been an issue. Recently, however, newer urethane balls were found to get softer over time. This is a new phenomenon, balls never used to get softer after manufacturing (without soaking). Due to this phenomenon, the PBA has determined that balls while in play are below the legal minimum and we are eliminating that with this new rule.