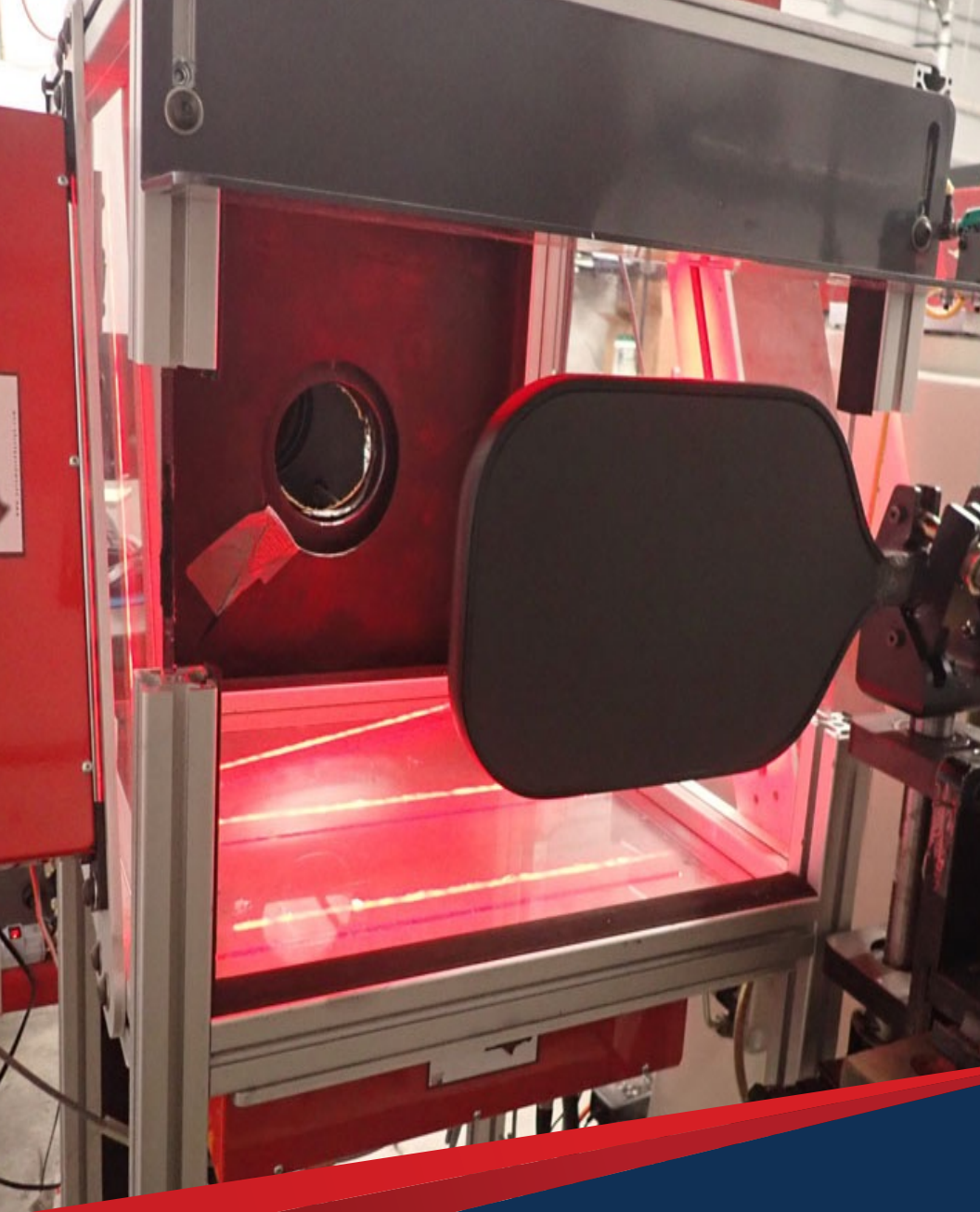




2025 EQUIPMENT STANDARDS MANUAL

REVISION 3.0 (JANUARY 2025)



INTRODUCTION

One of USA Pickleball's goals in growing the sport of pickleball is to ensure equipment standards. All equipment manufactured for the sport must meet specifications and play characteristics that reinforce the nature of the sport, provide consistent performance, and support fair competition both in the market and on the court. **This Equipment Standards Manual (ESM) provides the flow down of specification requirements from the USA Pickleball (USAP) Rulebook to specific definition of the testing that is done to confirm compliance with all USAP requirements.**

Working in tandem with testing labs hosted at Element U.S. Space and Defense (formerly National Testing Systems (NTS)), USA Pickleball's Equipment Evaluation Committee (EEC), in place since 2016, reviews every piece of equipment submitted for testing. Over 5,000 paddles and 400 balls have been tested since its inception, providing valuable data used to validate and improve specification definition, testing process, and methodologies.

This Specification Control Document (SCD) describes the specifications to guide companies that are involved in the manufacturing or marketing of pickleball equipment who seek certification of their products for use in USA Pickleball sanctioned competition, with those passing qualification bearing the 'USA Pickleball Approved' seal.

Updates for Revision 3 (Jan. 2025) include the introduction of the Paddle/Ball Coefficient of Restitution (PBCoR) test to characterize the level of power for a pickleball paddle. As well as updates in specification coverage for paddle surface finish, gloss and shiny edge guards.

EQUIPMENT SPECIFICATIONS

The current **USA Pickleball Official Rules of Pickleball** (the “Rules”) as found on the USA Pickleball website: usapickleball.org, states that any equipment to be used in a tournament which is played according to the Rules must be named on the list of ‘USA Pickleball – Approved’ which have been tested and approved as conforming to all of the specifications presented in these documents. USA Pickleball Approval does not imply any other form of approval or endorsement. We strongly recommend equipment manufactured for all instances of the sport, including recreational play, meet these carefully researched specifications that ensure the integrity of the sport.

See “USAP Rules” for description. The goal of this document is to ensure the nature of the sport is preserved through ongoing management of equipment specifications and processes to measure them.

This document will provide details and flow down of requirements from the USA PICKLEBALL OFFICIAL RULEBOOK (2025). Each Section of the USAP Rulebook related to Equipment will have a dedication section, as needed, in this Equipment Standards Manual.

Note: **Use of the USAP Approved Logo is a declaration that the product is compliant to all USAP requirements.** As such, these products may not be marketed as *USAP Approved* prior to completion of any/all testing and must be listed on the USAP public Database in order to be legal for use in sanctioned events (no pro prototypes or unreleased special editions).

SECTION 1 - THE GAME

See "Rules" for description -- The current **USA Pickleball Official Rules of Pickleball** (the "Rules") as found on the USA Pickleball website: [uusapickleball.org](https://www.usapickleball.org). The goal of this document is to ensure the nature of the sport is preserved through ongoing management of equipment specifications and processes to measure them.

SECTION 2 – COURT AND EQUIPMENT

2.A. **Court Specifications.** See “Rules” for description.

2.B. **Lines and Areas.** See “Rules” for description.

2.C. **Net specifications.** See “Rules” for description

2.D. Ball Specifications.

2.D.1 Design. The ball shall be made of a durable material molded with a smooth surface and free of texturing. The ball will be one uniform color, except for identification markings. The ball may have a slight ridge at the seam, as long as it does not significantly impact the ball’s flight characteristics.

2.D.2 Approval. The Tournament Director will choose the tournament ball. The ball selected for play in any USA Pickleball sanctioned tournament must be named on the official list of approved balls posted on the USA Pickleball website: USAPickleball.org

2.D.3 Size. The ball shall be 2.87 inches (7.29 cm) to 2.97 inches (7.54 cm) in diameter. The maximum out-of-round diameter variance shall not be greater than +/-0.020 inch (0.51 mm).

2.D.4 Weight. The ball shall weigh between 0.78 and 0.935 ounces (22.1 and 26.5 grams).

2.D.5 Bounce. The ball shall have a bounce of 30 to

34 inches (76.2 to 86.4 cm) to the top of the ball when dropped from a height of 78 inches (198.1 cm) onto a granite surface plate that is a minimum of 12 inches (30.5 cm) by 12 inches (30.5 cm) by 4 inches (10.2 cm). The test is to be performed at an ambient temperature of 70 degrees F plus or minus 5 degrees F.

- 2.D.6 Compression. The ball, undergoing a test performed in accordance with (IAW) ASTM F1888-09, shall yield an average compression test result of <43 LBF. Each ball will be tested two (2) times, once with the load applied perpendicular to the ball seam (if applicable) and once with the load applied parallel to the ball seam (if applicable). If there are no seams, then the ball will be tested once in a random location and the second location will be approximately 90-degrees from the first.
- 2.D.7 Hardness. (RECORDED FOR COROLLARY DATA ONLY, this is no longer a compliance requirement). The ball shall have a hardness of 40 to 50 on a Durometer D scale at an ambient temperature of 70 degrees F plus or minus 5 degrees F.
- 2.D.8 Design. The ball shall have a minimum of 26 to a maximum of 40 circular holes, with spacing of the holes and overall design of the ball conforming to flight characteristics. The ball must have a Manufacturers or supplier's name or logo printed or embossed on the surface, in addition to the "USA Pickleball Approved" seal or text treatment on the ball packaging in the case of balls intended for competition, or "USA Pickleball Approved" seal for non-competition applications.

2.E. Paddle Specifications.

- 2.E.1 Material. The paddle must be made of any material deemed safe and not prohibited by these rules. The paddle shall be made of rigid, non-compressible material meeting the testing criteria defined in this document.
- 2.E.2 Surface. The paddle's hitting surface shall not contain holes, indentations, rough texturing, or any objects or features that allow a player to impart excessive spin on the ball – As measured by and compliance to surface roughness test measurements, coefficient of friction test measurements, and coefficient of restitution test measurements
 - 2.E.2.a Paddle roughness and friction characteristics are determined in two ways:
 - 2.E.2.a.1 Using a Starrett SR160 or SR300 Surface Roughness Tester (or equivalent). The allowable limits for roughness shall be an average of no greater than 30 micrometers (μm) on the Rz readings (average maximum height, peak to valley) and an average of no greater than 40 micrometers on the Rt readings (maximum height, peak to valley), with all readings to be taken in six different directions.

Each face of the paddle will be

measured in six different directions and the data will be averaged per paddle face. No single data point in the data set can be above 33 micrometers for Rz, and no single data point in the data set can be above 44 micrometers for Rt. . The data set will be defined as the six data points on the face of a paddle. Each face of the paddle must be compliant to requirements – average of the six data points for each face of the paddle.

2.E.2.a.2 A coefficient of friction test based on protocol (IAW) ASTM D1894-14 is used to measure the general friction characteristics regardless of surface finishing process or technology; a paddle will pass this test with a maximum kinetic coefficient of friction value of ≤ 0.1875 .

2.E.2.b Reflection. The paddle's hitting surface, and edge guards, shall not be adversely reflective, such that it has the potential to negatively affect the vision of opposing player(s).

Paddles & Edge Guards shall not have any Measurement exceeding 80 GU. Measurement is to be taken at the

universal measurement angle of 60 degrees with ETB-0833 Self-Calibration 20° 60° 85° Surface Gloss meter Tester 0-200 GU or equivalent.

2.E.3 Size. The combined length and width, including any edge guard and butt cap, shall not exceed 24 inches (60.96 cm). The paddle length cannot exceed 17 inches (43.18 cm). There is no restriction on paddle thickness.

2.E.4 Weight. There is no restriction on paddle weight.

2.E.5 Alterations. Altered paddles must meet all specifications.

2.E.5.a Player alterations or additions to a commercially produced paddle as certified, may include such items as edge guard tape/replacements, weighted tape, weights for an Original Equipment Manufacturer (OEM) integrated weight system, changes to the grip size via inserts, grip wraps, OEM interchangeable grips, OEM replacement paddle faces, and name decals and/or other identification markings on the paddle face.

2.E.5.b Decals and tape can extend no farther than 1.0 inch (2.54 cm) above the top of the grip nor more than 0.5 inch (1.27 cm) inside the outer edge of a paddle or, if an edge guard is in place, 0.5 inch inside the edge guard.

2.E.5.c Handwritten markings are allowed on the

paddle's playing surface as long as they do not impact the surface roughness and are in good taste. No aftermarket graphics are allowed on a commercially made paddle other than "handwritten" pen markings.

2.E.6 Prohibited Surface Features and Mechanical Features.

- 2.E.6.a Anti-skid paint or any paint textured with sand, rubber or vinyl compounds or any material that causes additional spin – as measured by and compliance to surface roughness test measurements, coefficient of friction test measurements, and coefficient of restitution test measurements.
- 2.E.6.b Rubber and synthetic rubber – as measured by and compliance to surface roughness test measurements, coefficient of friction test measurements, and coefficient of restitution test measurements.
- 2.E.6.c Sandpaper characteristics – as measured by and compliance to surface roughness test measurements, coefficient of friction test measurements, and coefficient of restitution test measurements.
- 2.E.6.d Moving parts that can increase head momentum with a proven increase in force. Vibration dampers are acceptable.

2.E.6.e Removable parts. No removable parts except for edge guard tape/replacements, weighted tape, weights for an Original Equipment Manufacturer (OEM) integrated weight system, changes to the grip size via inserts, grip wraps, OEM interchangeable grips, OEM replacement paddle faces.

2.E.6.f Springs or spring-like material, flexible membranes or any compressible material that creates a trampoline effect – as measured by and compliance to surface roughness test measurements, coefficient of friction test measurements, and coefficient of restitution test measurements.

The PBCoR (Paddle/Ball Coefficient of Restitution) limits, as measured by the USA Pickleball PBCoR Test Protocol (published by Element U.S. Space & Defense)

PBCoR Test -- Not To Exceed Limits:

0.44 effective Nov. 1, 2024,
and will be reduced to
0.43 effective Nov. 1, 2025.

2.E.6.g Electrical, electronic, or mechanical assistance of any sort.

2.E.7 Model Designation. The manufacturer must have a clearly marked brand and model name or model number on the paddle, and must also include the 'USA Pickleball Approved' seal or text treatment. Paddles with different core material, surface material, or other significant differences must have a unique

name or number.

2.F. Equipment Approval and Authorization.

The approval of equipment authorized for sanctioned tournament play shall be made by the USA Pickleball Board of Directors acting on a recommendation of the Equipment Evaluation Committee (EEC).

2.F.1 Approval and authorization of a specified piece, model, brand, version, design, or type of equipment may be revoked by the Board of Directors upon 18 months' notice on the USA Pickleball home page, official national newsletter publications, or other acceptable means of communication, if the specified equipment is found to have been materially changed by the manufacturer or if the equipment materially degrades or changes under ordinary use so as to significantly alter the nature of the sport.

2.F.2 Manufacturers are subject to ongoing compliance testing to ensure that all products as produced and sold are identical to the paddle that has been tested/certified and is compliant with all requirements.

2.F.2.a Ongoing Compliance and Degrade to Benefit.

Paddles will be required to be compliant to all requirements over the entire useful life of the paddle.

If a paddle design and/or construction has failure modes, break-in periods, degradation or other gradual changes that affect paddle performance, then paddle must remain compliant

to all requirements- inclusive of any degradation to benefit over the entire useful life of the paddle.

2.F.3 USA Pickleball Approved Paddle List – Players are responsible for confirming that the paddle they are using for match play is listed as Pass on the USA Pickleball Approved Paddle List. The lists of approved equipment may be posted on the USA Pickleball website: USAPickleball.org.

2.F.3.a Violation. If at any point during the tournament it is determined that a player is using a paddle that violates any of the paddle specifications or is not listed on the USA Pickleball Approved Paddle

List as Pass, the following penalties apply:

2.F.3.a.1 If the violation is identified prior to the match starting, the player may switch to a paddle listed as Pass on the USA Pickleball Approved Paddle List without penalty.

2.F.3.a.2 If the violation is identified after the match has started, the player or team forfeits only the match being played.

2.F.3.a.3 If the violation is discovered after the match has concluded, the match results stand.



Note: USA Pickleball reviews equipment testing standards periodically and, with proper notification (via Notice of Proposed Rulemaking – NPRM process) to Manufacturers, reserves the right to modify equipment specifications as needed to maintain the integrity of the game.

USA Pickleball

Website: usapickleball.org

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For more information about pickleball and ordering bulk copies of the USA Pickleball Equipment Standards Manual, contact: info@usapickleball.org

USA Pickleball Association is the National Governing Body for the sport of pickleball in the United States.



NATIONAL GOVERNING BODY

The **Official Rules of Pickleball** and the **Equipment Standards Manual** are essential resources for players, referees, coaches, parents, and fans.

Included are USA Pickleball's official equipment specification flow down of the USAP playing rules, and interpretations.

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Please visit our website: usapickleball.org
for the most current rules, Equipment Standards Manual, and information.

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