Paddle Material Specifications

August 9, 2009

Introduction.

As the organization that sets the uniform standards for pickleball, the USAPA has the task of judging whether innovations in pickleball equipment may bring about a benefit to those who play, or whether such developments constitute a threat to the nature of the game.

In deciding any matter related to equipment, the USAPA is required to interpret the Rules in a manner which will preserve the traditional nature and character of the game and preserve the skills traditionally required to play the game.

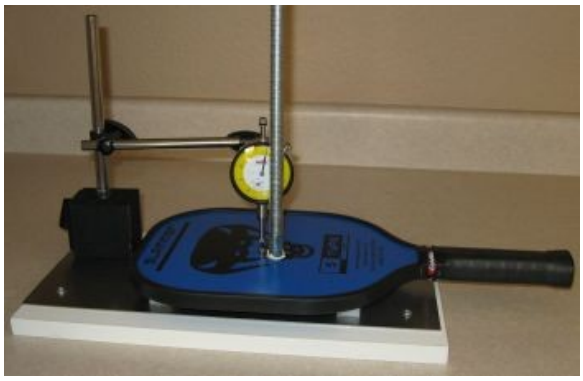
Traditionally, paddles have been made from relatively rigid, non-compressible material. That is the traditional concept of a paddle and that is why the game is not played with a stringed racquet. Paddles that produce a trampoline effect or an effect similar to a stringed racquet are specifically disallowed.

The following test is one measure of rigidity and compressibility of the paddle. See paragraph 2.E of the Official Rules for additional specifications.

Deflection Test for Rigidity and Compressibility.

The test stand at the left is used to measure deflection of the paddle surface when a known weight is applied. The paddle is supported on blocks five inches in length, separated by 5.5 inches measured at the interior surfaces.

A dial indicator measures the deflection in thousandths of an inch.



The photo at the left shows a paddle mounted on the test stand. A known downward weight is applied to the center of the paddle with a one-half inch steel rod.

Test Results

In May 2009, the above test was performed on most commercial paddles available at the time. With a force of 3 kg (6.6 lb) applied to the center of the paddle, deflection for all paddles measured within the range of 1 to 4 thousandths of an inch except for one paddle that measured 26 thousandths of an inch. Complete test results at weights of 3 kg and 5 kg are in a table below.

Conclusion

When subjected to the above tests, all traditional paddles have a deflection of 4 thousandths of an inch or less at a test weight of 3 kg. Paddles which have a deflection greater than 6 thousandths of an inch at a test weight of 3 kg may produce a trampoline effect and shall be subject to further testing or placed on a list of paddles that do not meet specifications.

Additional tests may be required in the future as paddle manufacturers introduce concepts that vary from the concept of a traditional paddle. The USAPA may add to this test to preserve the concept of a traditional paddle and to preserve the playing characteristics and integrity of the sport.

Complete Table of Test Results, May 2009

	Deflection (.001 inch)	
Description	**3 Kg (6.6 lb)**	**5 Kg (11.0 lb)**
Pickle-Ball Swinger Wood Paddle	2	5
Pickle-Ball Diller Wood Paddle	4	6
Pickle-Ball Master Wood Paddle	2	3
Pickle-Ball Pro-II Wood Paddle	2	4
Pickle-Ball Elite Model Regular Size Graphite Paddle	1	2
Pickle-Ball Champion Oversize Model Graphite Paddle	1	3
Apike Paddle Does not comply with the specification.	26	37
Pro-Lite Classic Composite Paddle	1	2
Pro-Lite Composite Aero-D Paddle	1	3
Pro-Lite Composite Magnum Size Paddle	1	4
Pro-Lite Power Paddle	1	2
Pro-Lite Graphite Aero-D Paddle	1	2

	Deflection (.001 inch)	
Pro-Lite Graphite Magnum Size Paddle	1	2
Pro-Lite Graphite Enforcer Paddle	1	2
S Type Sports Composite Slammer Paddle	3	4
S Type Sports Composite Stryker Paddle	1	3
S Type Sports Composite Stinger Paddle	1	2
S Type Sports Composite Extreme Paddle	1	2
S Type Sports Composite Storm Paddle	1	3
S Type Sports Graphite Slammer Paddle	1	3
S Type Sports Graphite Stryker Paddle	1	2
S Type Sports Graphite Extreme Paddle	1	2
S Type Sports Graphite Storm Paddle	1	2
Spike's Pickleball Paddle	1	2
Spike's ZZT Sports Paddle Alum Core w vinyl face	1	2
Prototype with Aluminum Core	1	2
Whipper Snapper	2	4