

Paddle Material Specifications

Revised March 7, 2014

Introduction

As the organization that sets the uniform standards for international pickleball, the International Federation of Pickleball (IFP) 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 IFP 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 IFP Rules for additional specifications.

Deflection Test for Rigidity and Compressibility

The test stand at the right 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.



See photos 2, 3 & 4

1. Position paddle head on parallel blocks.
2. Assure that paddle does not wobble during test. If needed hold paddle handle and end opposite handle down with sufficient force to prevent wobble.
3. Position ½" diameter disc on paddle near center of paddle head. Position straight rod dial indicator on disc. See figure 3. Observe reading on dial indicator.
4. Position 3Kg weight on top of dial indicator rod. See figure 4.
5. Observe difference in reading with and without weight to determine deflection.
6. Repeat in different areas near the center of the paddle head to determine maximum deflection observed.
7. Record highest reading.



Figure 2



Figure 3



Figure 4

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 5 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. (revised 1-28-12).

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

Update Nov. 26, 2012: The table below lists paddles that have been tested for deflection. In addition, a notation is made if a paddle does not comply with the paddle specifications in paragraph 2E of the official IFP rules. Manufacturers and retailers are not authorized to say "approved by" USAPA or IFP. They can say that they comply with the paddle specifications of the IFP. Approval would imply an endorsement for safety and reliability that are not within the scope of the testing.

[Table of Paddle Test Results](#)