



Paddle Guide

Power VS Control

Pickleball paddle manufacturers employ a diverse range of materials and technologies in their designs, aiming to enhance either power or control. The interplay of these elements results in distinct playing attributes on the court. Key determinants influencing power and control include:

Paddle Shape (The length plus the width must be no more than 24.0 inches)

Paddle Core (Including material type, density, and thickness)

Paddle Face (Including material type, number of layers, and finish/texture)

Paddle Handle (Including length and circumference)

Paddle Weight (Many paddles are offered in different weight ranges)

POWER ELEMENTS

- Elongated Shape
 - Thinner Core
 - Fiberglass Face
 - Longer Handle
 - Heavier Weights

Power paddles tend to have hotter and tighter sweet spots and provide greater feedback.

Examples Include:

- ProKennex Black Ace
 - CRBN-1X
- Joola Perseus CFS 14
 - Diadem Icon V2 XL
 - ProXR Beth Bellamy
 - Legacy Pro 14mm
- Holbrook Mac Pro E 13mm
 - Veloz Ellipse 13mm

CONTROL ELEMENTS

- Wider or Rounded Shape
 - Thicker Core
- Graphite or Carbon Fiber Face
- Traditional Length or Shorter Handle
 - Lighter Weights

Control paddles tend to have larger and more consistent sweet spots and are forgiving of mis-hits.

Examples Include:

- Joola Perseus CFS 16mm
 - Diadem Edge 18k
 - CRBN-1
 - Legacy Pro 16mm
- Holbrook Mac Pro E 16mm
 - Veloz Ellipse 16mm
 - Ronbus EV2 16mm
- Pickleball Apes Pro Line Eneregy 16.5mm

*Grip caveat: The circumference of the grip is more about comfort than power or control. You want to find the grip that works best for your hand size.

Don't Know Your Hand Size? Three Ways To Determine Hand Size

1. Height test

This informal test is supposed to work for both men and women. It's simple and works for the people we've tested. Remember, if in doubt, go with a smaller grip.

Player Height.....Grip Size

Under 5'2".....4 inch grip

5'3" to 5'8".....4 1/4 inch grip

5'9" & taller...4 1/2 inch grip

2. Finger test

Hold your dominant palm up. Notice your palm has three major creases. Take a ruler and measure from the middle crease of your palm, up to the tip of your ring finger. This measurement should reflect the perfect grip size for you. If you are unsure between two sizes, choose the smaller size.



SHAPE



Paddle shape influences playability in numerous ways. Ultimately, it affects the size, placement and shape of the sweet spot. All manufacturers work within the USA Pickleball specifications for paddle shape:

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.

In general terms, the longer and narrower a paddle is, the higher the sweet spot will be on the face. A higher the sweet spot means it is further away from your hand (greater leverage), and the contact point on the face is therefore moving faster when it strikes the ball. All of this translates to more power!

Other shape factors that will affect the size of the sweet spot are:

- Rounding of the paddle corners leads to a larger and more consistent sweet spot.
- Increase in paddle face area – a shorter handle and longer paddle face combine to increase the size of the sweet spot.

CORE



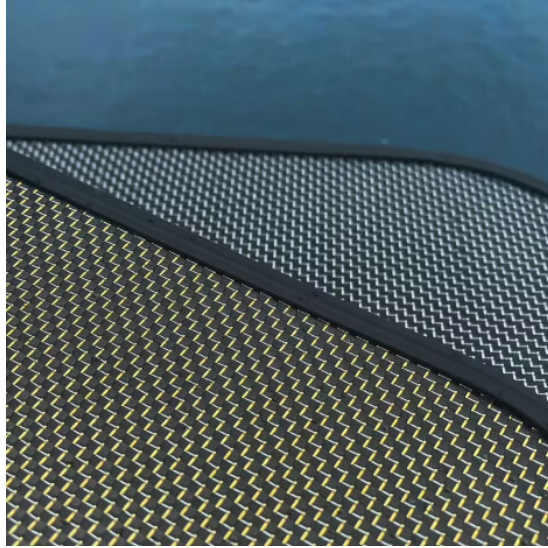
The major factors that affect power and control from a paddle core perspective are material and thickness.

The majority of paddles are made with a polymer honeycomb core. The harder the polymer used, the more energy that is absorbed by the core. More absorption leads to a wider sweet spot and a more consistent feel across the face of the paddle (better control). The softer or more flexible the core is, the more energy is returned to the ball which creates more pop (increased power). A Nomex paddle core is a different material which, although it is quite hard, has different properties and adds a degree of power. However, Nomex is somewhat rare to find in pickleball paddles these days because it is not as durable as polymer honeycomb cores.

There is no regulation that governs paddle thickness. **Paddle thickness operates in a similar way as material. The thicker a core is, the more energy is absorbed (better control). The thinner the core is, the more energy is returned to the ball (increased power). Typically, a 16mm+ core will give you more control, and 12-14mm core will give you more power.**

There are a few less common ways that cores are engineered to affect paddle performance. Solid Span Technology (SST), for example, uses graphite for the core. Some paddles use a hybrid of materials to attenuate performance. And some manufacturers use dampening materials in the core to change the placement, size, and shape of the sweet spot which yields slightly differences in paddle feel.

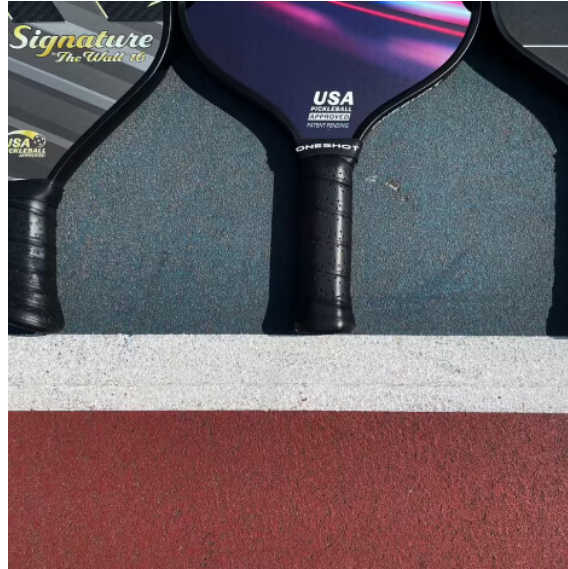
FACE MATERIAL



Face material is important in determining the power and control characteristics of your pickleball paddle. Once again, it determines the amount of energy absorbed or returned to the ball. Because the face is the largest part of the paddle and has the direct contact with the ball, it goes a long way in determining paddle performance. Graphite and Carbon Fiber are harder materials and absorb energy, allowing the ball to dwell on the face slightly longer and providing you a feeling of greater control over your shot placement. Fiberglass, on the other hand, is a softer material, it flexes, and produces a trampoline effect that returns more energy to the ball. This translates to greater power behind your strikes.

Your paddle's face material is also important in enhancing spin. The majority of spin on a ball is generated by the player and the path of their stroke. A paddle accentuates spin one of two ways – friction or adhesion. The coarser a paddle face is, the more friction it generates (think of knobby off-roading tires). Adhesion occurs when a paddle face is smooth but tacky. This causes the paddle to “grab” the ball to impart spin (think of the smooth tires of a race car). USA Pickleball tests paddle surfaces to ensure they are within the regulation limits for both roughness and adhesion.

HANDLE



The length of the handle is important in determining just how high up the paddle face, and how far away from your hand, the sweet spot lands. The longer the handle, the higher the sweet spot. As mentioned earlier, a high sweet spot means more paddle head speed at the sweet spot when contacting the ball, which translates to more power. A shorter handle not only moves the sweet spot down the paddle face (closer to your hand), it can yield a large surface area, which in turn enlarges the sweet spot and makes paddle performance more consistent across the face (better control).

WEIGHT



A paddle's weight affects both power and control to a great degree. The heavier a paddle is, the more power it will deliver. The lighter a paddle is, the quicker you can position it for your next shot, yielding an increase in shot control. The secret is to find the weight that works best for you. If a paddle is too heavy, it can lead to arm injury. If a paddle is too light and you have to swing harder to generate power behind your shots, it can also cause arm injury.

The optimal swing weight is therefore different for every player. It is the weight at which you swing a paddle that neither sacrifices hand speed, nor causes over-exertion to generate power. For most players it is somewhere between 7.4 and 8.3 ounces; consequently, the best way to determine the right swing weight for you is by testing many paddle weights or experimenting with adding weight (such as lead tape) to your paddle.

1. How do I pick a paddle? There are so many choices!

The best way to select a paddle is to try them out! Ask your fellow pickleball players if you can test-drive their paddles. Try various weights and grip sizes. If you find a paddle that feels good and balanced in your hand try to get that paddle's weight. We will hand weigh paddles to match the weight that you are seeking. If you don't have access to a wide variety of paddles to test, our Paddle Guide is a helpful tool to narrow the choices.

2. I'm buying my first paddle, any advice?

Your first paddle should have a classic pickleball paddle shape. You can add specialty paddles once you have a great classic paddle in your bag. The classic paddle is approximately 7 $\frac{3}{4}$ - 8 inches wide and 15 $\frac{1}{2}$ - 15 $\frac{3}{4}$ inches long. Most of the paddles we sell are classic-sized paddles.

3. What's the difference between fiberglass and graphite paddles?

Fiberglass paddles often weigh a little more than graphite paddles. Because they are a little heavier than graphite paddles, fiberglass paddles are considered to have more power. Graphite paddles are considered to have more control or finesse. Both graphite and fiberglass paddles are lightweight and strong. There is a general perception that graphite is better but no one has studied if there is a difference in how the ball comes off a graphite vs. fiberglass paddle.

4. Why do so many composite paddle have a overlapping edge guard?

You'll find an edge guard around the edges of a most composite paddles. The edge guard maintains the integrity of the paddle and provides a covering to the open honeycomb interior. Without an overlapping edge guard there is a risk the paddle will de-laminate, and be ruined. If a paddle de-laminates, the face of the paddle will pull up from the honeycomb interior, destroying the paddle.

5. How do I find a paddle with power?

Looking for more power? Select a heavy-weight or super-heavy-weight paddle. Power is all about weight. The heavier the paddle, the more power you have.

6. How do I find a paddle with more control?

Looking to improve control? Select a light-weight or middle-weight paddle with a smaller head size. Control is all about maneuverability and quick responses. Be lightning-fast with a lighter, smaller paddle.

7. How long should a paddle last?

How long a paddle lasts depends on how you care for it and how often you play. Top-notch players who play daily usually expect to retire a graphite or composite paddle after about one year. For people playing a couple of times a week, a paddle should last around three years. Wood paddles are extremely durable and will last many years.

8. What is a “Sweet Spot”?

All paddles will have some sort of "sweet spot" in the center of the hitting surface, regardless of the dimensions, as does a tennis racquet, baseball bat, or table tennis paddle. It's a matter of physics, nothing else. The key is to hit the center of the paddle, which takes practice and coordination.

9. Are there indoor and outdoor paddles?

Paddles are not made specifically for indoor or outdoor play. Balls are made specifically for indoors or outdoors, but not paddles.

10. Are there men's and women's paddles?

Paddles are not made specifically for men or women. Paddles are gender-neutral.

11. I'm a former tennis player, what paddle should I choose?

Former tennis players or racquetball players often like a paddle with a longer handle. The longer handle enables a two-handed backhand and more room for quick hand switches.

12. What difference does handle length make?

Longer paddles handles, such as those five inches or longer, provide more reach on ground strokes, added leverage on serves and slightly more power overall.

13. What is Paddle Deflection?

Pickleball paddles have a rigid paddle face. The USA Pickleball Association measures how rigid a paddle face is, by measuring the paddle face's deflection. The Association tests paddles by putting a

weight on the center of the paddle face and measuring how much the paddle bends under the weight. This measurement is the paddle's deflection. Most people might think of this as "flex."

14. How do I Check the Fit of my paddle?

Grip a paddle with your normal grip and see if you can slide the index finger of your other hand between your fingertips and the heel of your hand gripping the paddle. Your finger should fit snugly between the two without your having to move your fingers. If you must shift your fingers farther away from the heel of the hand to get your index finger in between the two, the grip might be too small. If you have space between your index finger and your fingers or heel of your hand, the grip might be too large.