

DID YOU KNOW GUIDE TO BADMINTON STUFF



Squash- 151mph

Tennis- 163mph



Badminton- 206mph!

Badminton IS the World's fastest racket sport!

RACKET SPECIFICATIONS

Handle Grip Size

The letters U (racket weight) and G (circumferential grip size) are seen on most modern day rackets. These letters followed by a number are the racket specifications. Below is a table of what they mean and what the letters and numbers are relevant to in terms of the physical attributes of the racket.

| Grip size (including original grip) | Yonex | Other Brands (may differ slightly) |
|---|--------------|--|
| G2 | 4.00 inches | 3.25 inches |
| G3 | 3.75 inches | 3.50 inches |
| G4 | 3.50 inches | 3.75 inches |
| G5 | 3.25 inches | 4.00 inches |

Grips should be big enough so that when holding the handle correctly (like shaking someone's hand), the tip of your ring finger shouldn't touch your palm. These days, most manufacturers are making rackets in a single size, so if you find the grip is too thin then you could apply some grips or overwraps to the handle until you find the grip that you're comfortable with.

Grip Codes Made Simple:

G3 = 95mm (large)

G4 = 89mm (medium)

G5 = 83mm (small)

These are for Yonex rackets and are not standard, for many manufacturers it's the opposite way around (size increases with code), so best to research the manufacturer to see what measurements they use. Most manufacturers now try to follow the Yonex G guide as to not confuse most badminton players; they can vary slightly by about 0.25 inches. The most common grip size is G4.

Racket Weight

The weight of the racket depends on your style of play. Some players like a light racket for defensive shots and quick manoeuvrability; others prefer heavier rackets for smashing. Though it depends on how well you play, it is also worth bearing in mind that generally when playing doubles a lighter racket is used and in singles the heavier rackets are used. Below is a table of the standard weights available:

| Weight Size | Weight (grams) | Main Use |
|--------------------|-----------------------|--------------------------------|
| 1U | 95 – 99g | Training Rackets |
| 2U | 90 – 94g | Attacking Singles |
| 3U | 85 – 89g | Singles / Attacking Doubles |
| 4U | 80 – 84g | Doubles / Defensive singles |
| 5U | 75 – 79g | Defensive Doubles |



Sweet Spot

The sweet spot on a racket (the best place to hit the shuttle) is generally just above the centre of the racket head. The sweet spot generally gets smaller the tighter the string base (tension of the strings) you have. Best way to find your sweet spot is to hit the shuttle at the centre of your racket head and then hit the shuttle higher up the racket (so hit the shuttle sooner) until you find the place that makes your shot smooth and fast, and generally makes the best crisp sound on impact. However, a racket's sweet spot will vary depending on the head shape (oval or isometric head) and stringing pattern. But in general the sweet spot will be at the centre of the racket or just above (top centre).

It's also good to bear in mind that the sweet spot will vary position from racket to racket. For example, an isometric head shaped racket will have a larger sweet spot and also the string tension (on any racket) would affect the size of the sweet spot. Just play with the racket and with time you will find the sweet spot.

Choosing Your String

There are many different brands of string. Depending on what type of player you are and whether you are after durability or control you can find one to match your requirements. One thing to bear in mind is that thinner strings are generally more powerful, but less durable. Ask your stringer for their advice on what string they would recommend for you.



Here is a small quick guide on what to consider if you are stuck on what strings to buy, it is very difficult to recommend strings as each player is different, and some strings can be better for some players but only at high tensions (say BG65Ti at 28lbs). It also depends on what you are looking to get out of the string, durability, control or power. All strings will lose tension over time but some more than others. Some players do not change the strings until they break, others change them when they feel the strings aren't performing to their requirements.

| String | Pete's Opinion |
|-----------------------|--|
| Yonex BG65 | Good durable string, feels thick and rough |
| Yonex BG65 Ti | As above but string feels smoother as coated in Titanium, better control but not as durable as the BG65 |
| Yonex BG80 | Thin string, holds tension well, good control and power, best strung at 24lbs and above, however, not very durable |
| Ashaway Flex 21 | Good durable string, string feels thick and smooth, an alternative to Yonex BG65 |
| Ashaway Flex 21 Micro | As above except a thinner string, more like BG80 but with better durability. Looses more tension over time than BG80 |
| Ashaway MicroPower | Good control and power, durability is good although control worsens as strings start to loosen |

Ideal String Tension

Once you have selected a suitable string to use you will then need to think about string tension. Tension means how "tight" the strings are strung at and is measured in pounds weight (lbs). What tension to have is effected by what sort of string you use, the type of player you are and how much tension your racket can take. Some manufacturer's recommended tension is quite low and it is possible to string their rackets to a higher tension but will obviously invalidate the warranty. Remember that the tighter you have your strings, the smaller the sweet spot will be and less room for error (more chance of miss-hits).

Here is some information to help you understand a bit more on what may suit you when choosing a tension and what set-up to use. Please be aware that if you experience arm, elbow or shoulder pain, it may be worth trying a lesser tension or increasing the number of grips on your racket.

Recommended tension:

| | |
|------------------------------|----------|
| For beginners | 18-21lbs |
| Juniors/Club Players | 22-24lbs |
| Advanced Players | 25-28lbs |
| Country/Professional Players | 29-35lbs |

Racket Balance Point

The balance point of a racket is taken from the handle end. Your playing style will dictate your requirement.

270-280mm = Head Light (for Defensive & Control Play)

275-285mm = Neutral (for All-Round Performance)

285-295mm = Head Heavy (for Offensive Play)

Stiffness

The power generated from the flexibility of the shaft is determined on the users swing and power. As a general rule of thumb, the faster the player's swing is, the more power they will be able to get from a stiffer shaft. The slower the swing, the more flexible the shaft needs to be. So if you are a beginner, you may want to have a more flexible shaft, though some advanced players may prefer a flexible shaft, depending on your style of play.

- Stiff - for player with good technique & fast swing
- Medium - for average player
- Flexible - for player with long, slow swing (also good for beginners)

There is no standard way to measure racket flex - one brand's "stiff" may be another's "medium" but the above is roughly what to expect.

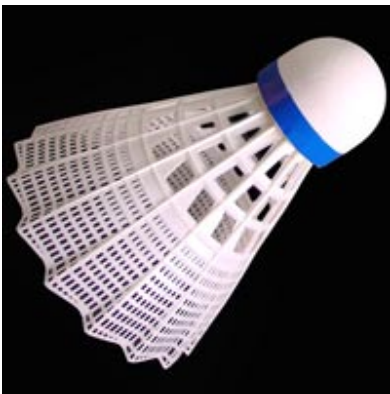
SHUTTLECOCKS

The Two Types

There are two main types of shuttles, nylon shuttles and feather shuttles. Both types of shuttles have their own properties and slightly different flight paths.

The length of flight of any shuttlecock is affected by changes of temperature, humidity and atmospheric pressure. A shuttlecock will fly further on a hot court than on a cold court and it will also fly much further at a height of 5,000 feet than it will at sea level.

To test any shuttle, use a full underhand stroke, which makes contact with the shuttle over the back boundary line. A shuttle of correct speed will land not less than 530mm and not more than 990mm short at the other boundary line.



Nylon Shuttles (plastics)

These shuttles are best if you are a beginner or you are on a limited budget. The flight path for these shuttles is slightly different to the flight path of a feather shuttle, and also the behaviour is slightly different. These are good shuttles as they will last a lot longer than feathers (hence why they come in smaller tubes), and have more room for miss hits and so forth. They come in tubes of 6.

Plastic shuttle speed guide:

| Shuttle Colour Band | Shuttle Speed |
|---------------------|---------------|
| Green | Slow Speed |
| Blue | Middle Speed |
| Red | Fast Speed |

Nylon shuttlecocks come in three varieties, each variety for a different range of temperatures. These three varieties are known as green (slow speed), blue (middle speed), and red (fast speed). The colours, and therefore speeds, are indicated by coloured strips fastened around the cork. In colder temperatures, a faster shuttle is used, and in hotter climates, a slower one is chosen.

Feather Shuttles

These shuttles are the best shuttles to use in terms of flight and accuracy. Professional and County players use feather shuttles and whilst they are the best shuttles to play with, they lack durability and are more expensive than nylon shuttles. They come in tubes of 12.



Feather shuttle speed guide:

| Temperature Range (Celsius) | Most Common Shuttle Speeds | Yonex Shuttle Speeds |
|------------------------------------|-----------------------------------|-----------------------------|
| 27 – 38 | 76 – 77 | 2 |
| 22 – 28 | 77 – 79 | 3 |
| 12 – 23 | 79 – 80 | 3 / 4 |
| 7 – 13 | 80 - 84 | 4 |

Shuttlecocks are ‘weighted’ from 76 to 84 grains (in tubes of 12). Other things being equal, 73 are the slowest and 85 the fastest (heaviest). There are 7,000 grains to one pound (0.45 kg). As a quick guide each grain adds approximately 4” to the length of flight.

The correct way of storing the shuttlecocks can be understood more easily when remembering that the goose feathers, from which they are made, contain moisture and natural oils.

This keeps them strong and supple and when they are in prime condition they will ‘give’ to the blows of the racket without breaking. The greatest care is taken during the manufacture of feather shuttles to ensure that all the moisture and natural oils are retained in the feathers so that the finished shuttlecocks are in the best possible playing condition when they leave the factory.

Exposure to heat or low humidity will quickly reduce the moisture and natural oils content in the feathers, making them dry and brittle with a shorter playing life.

Shuttles should be kept in a slightly damp atmosphere and in a temperature not exceeding 55 Fahrenheit (13 degrees Celsius). They should NEVER be stored in a dry cupboard or in any location which is centrally heated.

They should NEVER be stored in a refrigerator nor warmed in front of a fire. Exposure to heat will not only dry the feathers out but will also dry out the cork base. If this happens the base may well go out of shape, this will distort the ring of feathers and trouble with true flight will follow.

SCORING

The Basics

Each game is played to 21 points, with players scoring a point whenever they win a rally (this differs from the old system, where players could only win a point on their own serve). A match is the best of three games.

At the start of the rally, the server and receiver stand in diagonally opposite service courts. The server hits the shuttlecock so that it would land in the receiver's service court. The serve must be hit below waist height and with the racket head pointing downwards, the shuttlecock is not allowed to bounce. When the serving side loses a rally, the serve passes to their opponent(s) (unlike the old system, there is no "second serve" in doubles).

In singles, the server stands in the right service court when their score is even and in the left service court when their score is odd.

In doubles, if the serving side wins a rally, the same player continues to serve, but they change service courts so that they serve to each opponent in turn. If the opponents win the rally and their new score is even, the player in the right service court serves; if odd, the player in the left service court serves. The players' service courts are determined by their positions at the start of the previous rally, not by where they were standing at the end of the rally. A consequence of this system is that, each time a side regains the service, the server will be the player who did not serve last time.

Old Badminton Rules (which are still being used at some clubs)

The basics:

A badminton match consists of the best of 3 games. In doubles and men's singles, the first side to score 15 points wins the game. In women's singles, the first person to score 11 points wins the game.

If the score becomes 14-all (10-all in women's singles), the side which first scored 14 (10) shall exercise the choice to continue the game to 15 (11) points or to 'set' the game to 17 (13) points.

The side winning a game serves first in the next game. Only the serving side can add a point to its score. If you are not on the serving side, then you win back the serve.

AUTHOR'S NOTES

This guide was made using limited information and computer skills. As with many things, there are differences in opinion on certain topics, but this guide was created to give you a guideline of the basics, as many people are unaware of them. This is a FREE guide and was created during spare time (hence why it took so long to complete) and was designed with the idea that it would cover many topics without going into too much depth, and be printable so that you could show others or keep a copy in your badminton bag. I would like to take this opportunity to thank the many people (you know who you are) that have helped me along the way, either with information or checking the guide as it progressed. I will try and update, make any changes and possibly add or expand more, as I go along, so please do keep an eye out for a new version. After all, Rome wasn't built in a day!

If you would like to get in contact with the author with any information, ideas or help please leave a message with the owner of this website (Paul Stewart) or you may find the author on www.Badders.com.

I hope this guide has been of some use to you.

Peter Warman

LIST OF BADMINTON WEBSITES RECOMMENDED BY THE AUTHOR:

<http://badminton-coach.co.uk/>

<http://www.badmintonbible.com/>