BLADES, RUBBERS & TT JARGON

This is a note for coaches and players on choosing table tennis blades and to look at the characteristics of those that would best suit the ability of each level of player.

BLADES

Blades come in a range of shapes and sizes but most are made from ply wood from 1, 3, 5 and 7 ply, with 5 ply being very popular. The plies are arranged symmetrically about a single core ply and the layers of wood are arranged alternatively in a longitudinal and transverse direction to give added strength and resist cracking. A great deal of thought has been taken by manufacturers in selecting types of wood to use and where each type is situated in the blade to get the characteristics that they require. A further layer of complexity has become popular in recent years and this is the addition of layers of man-made fibres to stiffen the blade and reduce vibrations and also increase the size of the sweet spot, yet still maintain a high level of control. A 5 ply blade with two layers of fibre is the most common of this type and is often shown as 5+2 plies by blade suppliers. The fibre layers, in the form of an extremely thin mesh, are sometimes difficult to see between the wood layers.

Here is an example of 7 ply wood blade showing thin hard plies outside and thick softer plies forming the inner layers. The outside plies always have the fibres in the longitudinal direction.

Some examples of man-made fibres used in table tennis blades are:

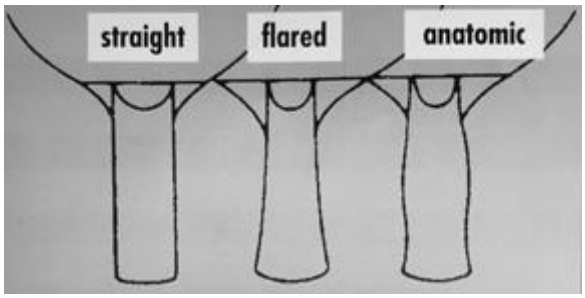
- Fibreglass,
- Arylate,
- Kevlar,
- Zylon and
- Carbon

Many of these types of fibres are used in compound sheets together with carbon, in the form of a mesh. Carbon fibres on their own are used in extremely fast blades and the other fibres listed above are added to reduce the overall stiffness to reduce the speed and increase control.

Each blade generally comes with one of three shapes of handle for players using the shake-hand grip and two styles for pen-hold players. The handle types for shake hand grip

BLADES, RUBBERS & TT JARGON

are straight, anatomic and flared. The flared grip accounts for the majority of blades sold in the UK in recent years.



The two types of pen hold grip are Japanese style and Chinese style. These have always been very popular in Asia and are still used by very many players there but there has been a shift to the shake hand grip by top players there in recent years. Only a very small percentage of players in Europe prefer to use a blade with a pen-hold grip.

It is very important to choose a blade that fits comfortably in the hand because a lot of the feeling of each shot comes through the handle of the blade, and for this reason it can be considered as an extension of the hand. The weight and balance of the blade must also feel right in the hand and suit the type of play that each player adopts. Weights of blades range from 60 to 95 grams with the most common at 85 grams.

Table tennis players fall into three broad styles:

- Attack,
- Allround and
- Defence

A player who adopts an attacking style would choose an offensive blade which has some hard plies to maximise power strokes, enabling shots at high speed and heavy topspin. The majority of blades with plies of man-made fibres fall into this category because these provide extra speed while maintaining reasonable control.

A player with an allround game would choose a blade that allows for a range of strokes. Some attacking strokes with topspin and some defending backspin strokes and this is accomplished using a mixture of plies made from soft and hard woods. The position of these plies is varied through the thickness to achieve the manufacturer’s desired result.

A defensive player needs to be able to absorb power from fast strokes with heavy topspin and so needs a blade with soft woods to accomplish this. A few defensive blades have different characteristics on the forehand and backhand so that intermittent attack strokes can be made. These are the only few exceptions to the usual symmetrical properties but in these cases the number of plies are still an odd number about a central core.

The vast majority of blades have plywood sheets that are symmetrical about the core ply.

BLADES, RUBBERS & TT JARGON

SELECTING A BLADE TO SUIT AN INDIVIDUAL PLAYER

The playing level of club players can be considered in five groups and these are:

1. Absolute beginner
2. Learner
3. Experienced club player
4. Player in adult league
5. Advanced squad player

If we now look at advising on suitable blades for each of the levels of the five groups listed earlier then the following should be considered.

1. Absolute beginner

An inexpensive blade is suitable for this group as they are only participating at a very basic level. This is the main group where a made-up bat, with rubbers already attached, is suitable as long as one is chosen with rubbers that have enough grip to carry out basic strokes.

2. Learner

It is important to select a blade that allows for further development as well as meeting the needs for the present level but at the same time it should not be so advanced that it actually hinders progress.

3. Experienced club player

At this stage a players playing style is more or less confirmed and here it is important for the player to appreciate their own limitations and not choose a large upgrade to the blade that they are using in the hope this in itself will improve their play. The emphasis here should be to practice current and additional strokes with existing equipment to achieve improvement. If upgrading is chosen it should be a relatively small well-judged increment.

4. Player in an adult league

Players in this group have developed to a level where they can have a major contribution in deciding the type of blade and rubbers suit their own particular requirements. If the club has a range of blades fitted with suitable rubbers then these can be used in a controlled environment to help a player make a better choice when upgrading the equipment of this level of player.

5. Advanced squad players.

This group seldom require advice on replacing equipment since they have enough experience to make their own choices by this stage. They have lots of contact with other players at their level and above, who can provide additional information, and they also have the opportunity to discuss and try out equipment that their peers are using.

BLADES, RUBBERS & TT JARGON

UNDERSTANDING PROPERTIES OF BLADES AS SHOWN BY MANUFACTURERS AND SUPPLIERS.

There is no standard way of manufacturers and suppliers of representing the playing characteristics of a particular blade and there is no scientific test to take human variation out of this that I have found. Each have their own way of assessing and displaying data on each individual blade and all of the data is determined by experienced testers within each organisation. They give values for important properties such as speed, control and weight. As far as I can find out estimates of speed and control are subjective, with the tester giving marks based on their own personal experience in carrying out tests on a wide range of blades over an extended period of time. As expected, if a large amount of data is examined then some inconsistences are found but the data is still useful in a broad sense as long as the limitations are understood.

This is just the information on blades before the added complication of what happens when you glue rubber on to a blade because, as expected, this also has a big effect on the ultimate playing characteristics of what would now be called a bat.

Examples showing data on a Stiga Allround blade from two suppliers.

BRIBAR

- Speed 75
- Control 70
- Weight 85 gms
- Category:- Classic Allround

TEES SPORT

- Speed 7.5
- Control 8
- Weight 85 gms
- Category:- Allround

BLADES, RUBBERS & TT JARGON

RUBBERS

There are very many types of table tennis rubbers available now and the list is continually changing with new ones added all the time and others no longer available.

Almost all sheets of table tennis rubber consist of an outer sheet of pimpled rubber glued to a sheet of sponge during the manufacturing process. The sponge is available with a thickness of 0.5 mm up to a maximum of 2.3 mm. Most of the sheets of rubber being sold have the smooth side as the playing surface and these are known as reversed rubbers. After purchase, the rubber is then glued to the outer wooden surface of the blade using a water based glue. For many years the regulations stated that one side of rubber had to be red and the other black. From October last year the regulations were changed to allow extra colours to be used but one side still has to be black. The extra colours allowed are blue, pink, violet and green and these are currently available.

Since the modern game is dominated by attacking players using spin, most rubbers have a smooth grippy surface to enable a player to impart the maximum amount spin on the ball. In the case of many Chinese rubbers this is often achieved by having a tacky surface while those with a non-tacky surface rely on the grippy property of the rubber itself to apply the rotation to the ball. There are also rubbers available with short pimples facing out and these would be used by players who have an up to the table flat hitting and blocking style of play. Some rubbers, used by defensive players, have a “slick” surface and this greatly reduces the impact of heavy topspin or backspin from an opponent. Others have long pimples facing out and these provide a disturbing effect on the flight of the ball to confuse an opponent.

In the last year or so Peter Connolly, as club Head Coach, has purchased rubbers for the club, with a range of properties suitable for players from beginner to advanced. These have been glued to a number of examples of the same blade so that players and coaches can use these to compare the properties of a range of rubbers without the added confusion of having different blades. All assessments of table tennis rubbers are subjective because things such as how a player grips the handle and blade can affect the outcome of a stroke so it is important to try and keep as many things constant as possible.

Most of the rubbers purchased by club members are obtained from Bribar and their catalogue has a section on how to choose rubbers. This has been copied on the following pages to give club members an insight into how to make an appropriate choice when replacing rubbers, or upgrading when they have improved their level of play.

BLADES, RUBBERS & TT JARGON

TT JARGON (reproduced from Bribar Catalogue 2021)

Rubbers

Playing Style & Spin, Speed and Control

You will see a panel at the bottom of each rubber description which will give you an overview of how that rubber performs. This information is also repeated on the rubber chart where rubbers are grouped together for ease of choice.

As with blades, you need to identify your style of play. Most players use spin as the basis of their game and will opt for reversed rubbers.

As with blades, our ratings are based on our own testing. Spin, speed and control are the core elements of table tennis play but remember, so much is dependent upon the user's ability to play accurate strokes, their timing of the ball and their 'touch'.

FAQ

How long will my rubber last?

It is generally recommended to change rubber after approx. 60 hours play, particularly reversed rubbers, as the spin and speed will drop off. If you leave it too long you will notice a marked difference in performance. As a rough guide most regular players change their rubbers twice per season, and weekly league players once per season.

Rubber Surfaces

Rubbers are classified into the following groups:

Reversed rubbers

90% of our rubber sales are reversed, i.e. smooth surface facing out. These are rubbers with which you can produce spin and they are suitable for virtually every style of play, from defense to out and out attack.

Reversed Catapult effect rubbers are very popular and account for a very high and increasing proportion of our rubber sales. The big advantage of Catapult Effect Rubbers is the excellent feeling when playing touch or passive strokes but combined with the extraordinary power and spin capabilities when playing aggressively.

Conventional reverse rubbers offer less catapult effect but allow you to play a variable attacking or allround game. These rubbers require the user to work harder but nonetheless they offer good possibilities of spin and speed for solid conventional play.

Sticky Reverse rubbers are typically Chinese. The surface of the rubber is very sticky and grippy but consequently has less rebound effect. Most sticky rubbers are designed for spin players who do not require excessive pace and generally play an allround game which involves regular and heavy chopping, combined with heavy topspin.

BLADES, RUBBERS & TT JARGON

Defensive reverse rubbers generally feature thinner sponges. The rubbers and sponges are commonly softer, increasing the dwell time, increasing the spinning possibilities and enhancing the control. However, defensive rubbers will reduce your capability to hit through an opponent.

Short Pimples

As the name suggests, short pimples have a short length of outward pimples up to 1mm long. The effect of spin is reduced, but on the positive front they negate your opponents spin and suit a flat hitting style of game for up to the table blocking and counter hitting. The new Catapult short pimples have built in speed effect and produce a very awkward skidding effect when used well.

FAQ

Should I select the same rubbers for each side?

Certainly not essential!? Most players have one wing stronger than the other and it makes sense to design your rubber choice to suit your game.

Orthodox Pimples

A short pimple but without sponge. Typically these have been used by classic defenders who largely chop but might also come into the table for flick shots.

Medium Pimples

Medium pimples have medium-height pimples between short and long in length! The pimples create an element of 'wobble' effect like long pimples, but not as severe in disruption. On the plus side they are easier to attack with, and more consistent in performance.

Long Pimples

Long pimples are a pimpled rubber with taller pimples, generally softer which bend and impart awkward spins on the ball. Long pimples give the most 'wobble' effect and spin negation. However, long pimples can be difficult to attack with and often require a change of technique.

Anti Spin

Reverse rubbers with a smooth surface which is virtually frictionless and normally has an absorbent sponge. The result is that the rubber virtually 'sucks' spin out of your opponents shots and slows the ball. The rubber is perfect for countering spin, but at the same time it is almost impossible for the user to impart spin themselves. The new 'slick' anti loops have a harder feel and are more difficult to use but offer terrific spin reversal.

Sponge Thickness and Hardness

Sponge is the layer that is fitted beneath the rubber surface and is generally between 0.5mm and up to 2.3mm (also known as Max) thick. As a rule of thumb, the thicker the sponge the faster the rubber. The most popular rubber thickness is 2.0mm which is ideal for a variable attacking game.

Sponge density is measured in degrees of hardness – the softer the sponge the more forgiving and the easier to play.

FAQ

I'm still confused, can Bribar help?

Yes – we are just a phone call or an e-mail away. The Bribar team consists of experienced players with excellent knowledge of the game who will offer you advice and options to consider. Ask the many satisfied repeat customers, some of whom have been with us for more than 30 years..