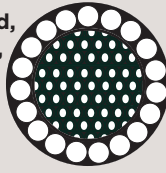


ARAMID

What it is: Aramid, an abstract of oil, is stronger than steel and is used in body armour. Because of the material's stiffness, aramid strings are always made by combining lots of fibres together (multifilament – as shown in the diagram) to add some give. It is marketed under trade names such as Kevlar and Technora. Kevlar, the best-known, is a



registered trade name of DuPont Industries.

Properties: Even in multifilament form, aramid offers virtually no stretch, so it doesn't lose tension, giving the highest durability of all strings. It is only really suitable for use in the main strings (vertical strings). If it were used for the cross strings as well, it would feel like plywood.

Who should use it: Aramid combined with a cross string of nylon or natural gut will suit all standards of players for whom

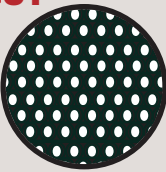
string breakage is a problem. This is likely to include people who hit the ball exceptionally hard or who use a lot of topspin. For club players, tension loss in the cross strings is unlikely to be major problem. Tour players, however, need to rip the strings out after a day. **Who shouldn't use it:** People with shoulder, elbow and wrist problems shouldn't use aramid strings because they are too unforgiving. Also, if you have a very stiff racket frame it will make the racket feel even stiffer.



Cost: A restring with aramid as the main strings and synthetic gut as the cross strings will cost **£15-£30**
Examples: Prince Pro Blend with Duraflex – with aramid fibre main string; Toalson Hybrid KV (W & D Strings: 01580 752972) – Kevlar main string and synthetic for the cross strings

NATURAL GUT

What it is: Natural gut is made from intestines of cows or sheep. It is always produced as a multifilament (see diagram) due to its naturally limited thickness. **Properties:** Gut is the most elastic string material. The added stretch means it moves more in the frame, increasing the chances of notching making the strings break quicker. It loses tension



too, but for most players breakage occurs before tension becomes a factor. Gut is hydroscopic – if it gets wet it loses its elasticity and goes dead. **Who should use it:** 25 years ago most used gut. With less emphasis on topspin, strings broke less often. Additionally, string tensions were lower. In today's professional game, the men don't tend to use gut because of its lack of durability, though some of the women, including Serena Williams

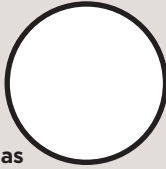
(Wilson Natural), still do. Those who would benefit most from natural gut include good club players, especially those who hit flat or with slice as opposed to heavy topspin and those who enjoy a soft, forgiving feel because gut strings produce minimum shock/vibration. Gut would also suit players who are susceptible to tennis elbow. **Who shouldn't use it:** Those on a tight budget and with an inclination to break strings. A restring costs up to **£50**.



Cost: A restring in natural gut will cost **£25-£50**
Examples: Bow Brand Natural Gut (Bow Brand: 01553 772943); Babolat VS Touch

POLYESTER

What it is: Polyester strings are always produced using a single fibre (monofilament – as shown in the diagram). **Properties:** Polyester has a smooth, hard surface which makes it resistant to notching and breakage. However, of all the strings it loses tension the most. It has quite a hard, stiff feel to it – though not as hard as aramid.



There are several grades of polyester available. Often two grades are blended together in the same string and sometimes reinforced with chemical additives to enhance different playing properties. **Who should use it:** Polyester-based strings best suit people who play a lot on clay using hard heavy topspin and who want to be sure that they can play for four to six games without breakage. This is likely at the pro end of the game, where rackets are strung as

little as two hours before players go on court because the string loses tension so quickly. Rackets are often changed with the balls after seven games, whether the strings have broken or not. **Who shouldn't use it:** Polyester is not ideal for juniors and average club players: it is stiff and offers little feel. A club player is unlikely to break polyester, but after only a week, tension loss would be high. Polyester is not always advisable for those playing with stiff rackets or with arm and elbow problems.



Cost: A polyester-based restring will cost **£8-£20**
Examples: Luxilon Big Banger (W & D Strings); Tennis Tech Match Pro (Tennis Tech: 01923 841530)

POLYAMIDE

What it is: Polyamide, better known as nylon or synthetic gut, is a versatile material. String makers can bond and intertwine polyamide fibres in different ways to produce strings of varying playing characteristics. **Properties:** The most popular construction is a 'solid core with a single wrap' (as shown in above diagram). It offers maximum



durability with minimum tension loss. It has the hardest feel of all the nylon strings but it is still a lot softer than polyester or aramid. The 'multifilament' is a coreless nylon string in which multiple synthetic fibres are twisted in a manner similar to that of natural gut. It has the softest feel of all the nylon strings but also has the highest tension loss and lowest durability of the nylons. All the other nylons are an attempt to achieve a balance between the playing characteristics of the two strings mentioned above.

Who should use it: The 'solid core single wrap' is ideal for club players because of its maximum durability and minimum tension loss. The 'solid core multi-wrap' and 'multifilament' are good choices for players who use wide-body frames. The 'multi-core single wrap' is a forgiving string for those with arm problems, while those wanting extra durability should audition the 'multi-core multi-wrap'. **Who shouldn't use it:** Nylon strings are not generally durable enough for top-ranked players.



Cost: A restring in nylon will cost **£12-£25**
Examples: Solid core single wrap: Prince Synthetic Gut with Duraflex; Prince Topspin (solid core with textured wrap). Multifilament: Tecnifibre Competition Wilson NXT (from Framework: 01730 895018). Multi-core single wrap: Gamma Revelation 16; Head FXP. Multi-core multi-wrap: Head Perfect Control; Gamma Live Wire Professional. Solid core multi-wrap: Babolat Magic Force; Head FiberGel 16.