







| Blade | Line | Speed | Control | Accuracy | Hardness | Flex | Handle | Top Layer | Fibre | Layers | Thickness |
|--------------------|--------------|-------|---------|----------|--------------|-------------|---------------------|-----------|-------------|-----------|-----------|
| Vyzaryz Freeze | Premium | | | | | | FL / ST | Limba | ARY-c | 5+2 outer | 5,8 mm |
| Vyzaryz Freeze HRD | Premium | | | | | | FL / ST | Koto | ARY-c | 5+2 outer | 5,7 mm |
| Vyzaryz Trinity | Premium | | | | | | FL / ST | Limba | Х3 | 5+2 outer | 5,8 mm |
| ZQH Hyper ARY-c 90 | Premium | | | | | | FL / ST | Koto | Hyper ARY-c | 5+2 outer | 5,7 mm |
| ZOH Hyper ARY-c 45 | Premium | | | | | | FL / ST | Limba | Hyper ARY-c | 5+2 outer | 5,7 mm |
| Nobilis PBO-c | Premium | | | | | | FL / ST | Hinoki | РВО-с | 3+2 | 7,1 mm |
| ZeLeBRO PBO-c | Premium | | | | | | FL / ST | Limba | PBO-c | 5+2 outer | 5,7 mm |
| Santoru 3K-c | Professional | | | | | | FL / ST | Hinoki | 3К-с | 3+2 | 6,3 mm |
| Santoru KL-c Inner | Professional | | | | | | FL / ST | Hinoki | KL-c | 5+2 inner | 5,9 mm |
| Santoru KL-c Outer | Professional | | | | <i>0000</i> | | FL / ST | Limba | KL-c | 5+2 inner | 5,9 mm |
| XYLO 5 | Professional | | | | | | FL / ST | Hinoki | - | 5 | 7 mm |
| XYLO 7 | Professional | | | | | | FL / ST | Limba | - | 7 | 6,4 mm |
| Rosskopf Emotion | Professional | | | | | | FL / ST / ANA / PEN | Hinoki | 3K-c | 5+2 inner | 6,3 mm |
| Tezzo Paladin | Performance | | | | | <i>0000</i> | FL / ST / PEN | Limba | 3K-sc | 5+2 inner | 5,8 mm |
| Tezzo Guardian | Performance | | | | | | FL / ST / PEN | Limba | - | 7 | 6,8 mm |
| Tezzo Warrior | Performance | | | | | | FL / ST / PEN | Limba | KL-c | 5+2 inner | 6 mm |
| Tezzo Spartan | Performance | | | | | | FL / ST / PEN | Limba | KL-c | 5+2 outer | 5,8 mm |
| Rosskopf Allround | Performance | | | | | | FL / ST / ANA | Limba | - | 7 | 6,1 mm |
| Rossi Junior | Performance | | | | | | FL | Limba | - | 7 | 6,1 mm |
| Challenger Junior | Progressive | | | | | | FL | Poplar | - | 5 | 6 mm |
| Challenger ALL | Progressive | | | | | | FL / ST | Poplar | - | 5 | 6 mm |
| Challenger OFF | Progressive | | | | | | FL / ST | Limba | - | 5 | 6,1 mm |
| Challenger Carbon | Progressive | | | | | | FL / ST | Koto | 3K-c | 5+2 inner | 5,8 mm |
| CWX | Precision | | | | | | FL / ST | Limba | - | 7 | 5,9 mm |
| CWX Defender | Precision | | | | 00 00 | | ST | Limba | - | 5 | 7,5 mm |



A limba top layer provides a soft feel with a higher trajectory on your shots. Perfect for topspin play.



A koto top layer provides a firmer and crisper feel on your shots, which is perfect for direct and powerful play.



Hinoki's softer feel gives a one-of-a-kind touch that TOP LAYER increases dwell-time for spin and control. All while also giving a catapult effect on the bounce.



The resulting fiber produces a large sweet spot, enabling the player to execute exceptionally fast shots with great precision. When combined with JOOLA's innovative cold-curing technology, in which it's pressed for long periods of time at low temperatures, the ARY-c provides a higher trajectory and a softer touch.



HYPER ARY-c

HYPER ARY-c fibers are enormously powerful and give the player unprecedented, crystal clear ball feedback. At the moment the moment the ball hits the court, there is an optimal transfer of energy in the form of extreme rotation and speed values. At the same time, the typical ARY-c, catapult and sensitive touch is preserved. The reduction of vibration to a minimum enables a very stable and precise offensive



PBO is a synthetic polymer used in race cars and **PBO-** aeronautics for its durability and high-elasticity. It is used in PBO-c to complement the hard Carbon, creating a larger sweet spot and a softer stroke feeling.



3K-sc

A softer variant of the JOOLA 3K-c Carbon fiber, the 3K-sc offers more vibration feel in shot feedback and a higher level of blade flex. This helps create a greater spring effect in blades whilst maintaining a softer Carbon feeling.



3K-c

Every strand of fiber in this 3K-c weave is made up of 3,000 individual Carbon filaments. The 3K-c significantly reduces vibrations to create an enlarged sweet spot and produce a flat ball trajectory. Truly an offensive weapon in all aspects, this fiber's most notable characteristic is its hard, direct touch.



Best known for its use in bulletproof body armor, **KL-** lightweight KL-c softens up the hard touch of Carbon to create a medium-hard stroke. Capable of sensitive topspin play, this favored KL-c composite material has the ideal balance of speed, spin, and feel.



The ground-breaking JOOLA X3 fuses the PBO-c and ARY-c into a new super-composite directional weave. Horizontal threads of PBO-c create a uniquely consistent playing feel and touch while vertical threads of ARY-c extend through the handle to provide stability throughout.

20