

Vectran

AKA Liquid Crystal Polymer –
Kururay (fiber manufacturer)
CSR – Braider

Properties: Low volume, very little elongation, very abrasion resistant, and very abrasive and has excellent resistance to fatigue (torsion, folding). Very high UV resistance and hydrophobic.

Vectran is our preferred and most commonly used line type and is available on all our wings. It is a very strong line and dimensionally stable (holds its trim well). It wears more easily than some other lines, especially in abrasive sandy environments.

Vectran is an LCP (Liquid Crystal Polymer) material. An Aramid is a polyamide whose polymer chain contains aromatic "ar-amide" nuclei. Vectran® (LCP) is a polyester with aromatic nuclei. Therefore depending on the source some classify, Vectran as an Aramid material and others separate it.

PROS: High strength for its size, wear is easy to detect (color change and fibers), dimensionally stable

CONS: Wears relatively easily- changes color quickly.

Technora

AKA High Modulus Aramid
Teijin (fiber manufacturer)
Edelrid – Braider

Properties: Low volume, very little elongation, moderately abrasion resistant, and mildly abrasive. Less UV resistance (requires a coating) and not hydrophobic (also requires a coating).

Technora also known as High Modulus Aramid (HMA), is a very strong, small-diameter line. It's harder to estimate the extent of wear on HMA compared to Vectran. This material should be examined often and thoroughly before use. This soft texture and flexibility of the material has a correlation with a decrease in the incidence of some malfunction types.

PROS: Best initial strength for its size, wear is detectable (frayed/broken fibers), dimensionally stable

CONS: wear is sometimes more difficult to detect than Vectran (no color change but shows broken fibers), subject to reduced strength over long periods of time from flexure/bending (typically over 5000 cycles)

Spectra-Dyneema

AKA *Ultra High Molecular Weight Polyethylene [UHMWP]*, also known as Microline
Honeywell (fiber manufacturer)

CSR – Braider

properties: Low volume, very little to no elongation, very abrasion resistant, and not very dimensionally stable. We currently do not offer this line on our wings.

Slider Type

RDS-Removable Deployment Sliders

The removable deployment slider is a non-magnetic stainless-steel ring machined out of billet material. The thinner thickness of these rings can concentrate the friction due to the smaller radius of the ring, and increased pressure as the contact area is reduced.

Stainless Steel Grommets, normal Sliders

The thicker stainless slider is a commercially available stainless steel ring grommet that is standard for most applications in the industry. The increased thickness of the inner portion of the grommet decreases the concentration of the forces when compared to the removable rings.

If line durability is the main concern then a standard slider will generally provide longer-lasting line durability for the lines.