

SICEN

Tyra Hybrid Sport
dimension-polyant

Tyra Hybrid Sport – Total performance for large boats.

The latest addition to our Tyra TEC® range is aimed at club racers and highly ambitious cruising sailors with boats over 35 feet in length who, whilst seeking top performance, do not wish to compromise on durability or the black aesthetic. This is made possible by our in-house Tyra Technology®, in which the yarns are first split into individual filaments and bonded into a tape before being processed into an inner matrix structure within a particularly durable laminate. The result: a significantly lighter and thinner material that is considerably more durable than a pure filament product.

In the warp direction, the inner matrix structure consists of spread-out fibres made from 50% black aramid and 50% Ultra PE. This ensures exceptional dimensional stability in the warp direction and makes the material lighter than laminates with a conventional matrix offering similar performance characteristics. In the fill direction, high-strength Ultra PE threads are used.

Two films encapsulate the inner matrix. These are additionally finished on both sides with a woven taffeta, which ensures durability thanks to its abrasion resistance. What makes the taffeta special is that the yarns are spun-dyed; this means, on the one hand, that less water and fewer chemicals are used in the dyeing process, and, on the other, that the end product is less prone to fading under UV radiation. Furthermore, the surface is treated with our functional UVM® finish – which offers additional protection against mould growth and further enhances UV stability.

This construction principle is unique on the market – and reflects our uncompromising commitment to quality. With Tyra Hybrid Sport, Dimension-Polyant presents one of the most advanced developments in its portfolio – lightweight, robust and high-performance down to the last detail.

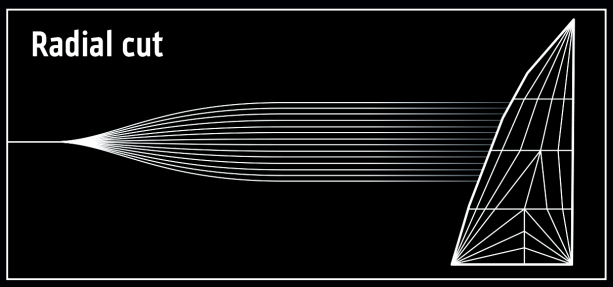
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Internal matrix structure:
Tyra Technology® unidirectional

Surface: Woven Polyester Taft

Boat Length	Application	Radial cut
31-35	Mainsail	THS06
	Light#1	–
	#1	–
	#2	THS06
	#3	THS06
36-40	Mainsail	THS08
	Light#1	THS06
	#1	THS06
	#2	THS08 / 06
	#3	THS08
41-45	Mainsail	THS10 / 08
	Light#1	THS06 / 08
	#1	THS08 / 06
	#2	THS08
	#3	THS10 / 08
46-50	Mainsail	THS10
	Light#1	THS06 / 08
	#1	THS08
	#2	THS10
	#3	THS10



Tyra Technology® – From fibres to monofilament tapes to rolled goods

With our Tyra Technology®, we split fibres into individual filaments and fix them onto a unidirectional monofilament layer tape in a previously unattainable, homogeneous distribution. The product is our Tyra UD® Tape. This innovative filament tape forms the basis of the new Tyra range. Our world-leading production enables the processing of numerous fibre types and combinations as well as the integration of various stabilising materials such as scrims, veils and adhesives. The Tyra UD® tapes are laid on top of each other at different angles to form the inner matrix structure of Tyra PLY®. Here, we focus on the requirements of the respective application areas and produce various qualities, ranging from unidirectional (0°) to biaxial (0° and 90°) and multiaxial (0°, 90°, 83°, and off-angle support).

The use of Tyra UD® ensures unique profile stability even in demanding environmental conditions and offers significant weight savings compared to conventional laminates or membranes at the same time Depending on the area of application, the surface also varies and ensures the durability of the material with a light, thin and strong inner matrix – we offer high-performance products for performance racers, club racers and cruisers.

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