



NOVA MENTOR 7 LIGHT - LIGHTWEIGHT 2.5-LINER (EN/LTF B)

The faster, the better

The long-awaited MENTOR 7 Light is designed as a Hybrid 2.5-Liner, which carries the genes of the XENON. This new construction allows effective pitch control similar to 2-liners and ensures outstanding XC performance. The number of cells has been increased to 66 and it comes with a new riser, the SpeedBrake Riser 2.0. The aspect ratio of 5.5 (flat) stayed almost the same compared to its predecessor, and the demands on the pilot remain identical. With its smart lightweight design, the MENTOR 7 Light meets the demand for light, durable XC gliders.

The MENTOR series can almost be described as legendary. It is in a class of its own: that of the EN/LTF B gliders, with which a good pilot can fly 250 km FAI-triangles - with comparatively high comfort and manageable extreme flight behaviour. Especially with the MENTORs, the name said it all and whole generations of XC pilots were able to fly their first really long distances with these gliders.

From the very beginning of the design process of the MENTOR 7 Light it was clear that the classification of the glider and the demands on the pilot must not change under any circumstances - no matter how the design evolves.

Practically everything has changed: the MENTOR 7 Light is a **completely new design** as a cutting-edge Hybrid 2.5-Liner. R&D boss Philipp Medicus reveals: "The design difference between the MENTOR 6 and the MENTOR 7 is greater than that between the MENTOR 2 and the 6. In the case of the MENTOR 7, a lot of knowledge from the development of our ultralight XENON two-liner also contributed."

Most striking is the concept of the **Hybrid 2.5-Liner**. In practice this means that at the outer wing of the MENTOR 7 Light is a two-liner. The C-risers have no outer main lines. On the one hand, this brings a small aerodynamic advantage (less drag), but above all, this design allows for **outstanding accelerated flying characteristics** and a **control of pitch**



movement, so far only possible on two-liners. The MENTOR 7 Light feels more like a higher category glider. It is super-solid in the air - the faster it flies, the more solid it feels.

Of course, the attachment points had to be optimised for the new construction and for the first time NOVA now uses rods in the rear part of the canopy on an EN-B wing. Philipp Medicus explains: "Thanks to the rods, the MENTOR 7 Light can fully develop its XC potential. This means saying goodbye to our "Easy Packing" concept since the MENTOR 7 Light should be packed using the Pack Roll and Concertina Bag. However, we gladly accept this little disadvantage in favour of the major advantages in the air."

The **number of cells** has increased from 59 to 66 in comparison to the previous generation. The **flat aspect ratio** has minimally increased from 5.43 to 5.5. This is the equivalent of approximately 7 cm more span - so negligible. However, what is important is that the MENTOR 7 Light also stays true to the NOVA motto of "little aspect ratio - a lot of performance" and it still has one of the lowest aspect ratios among the high-end EN B wings. The **projected aspect ratio** increased from 3.9 to 4.18. The MENTOR 7 Light therefore has a slightly smaller arc, which results in a smaller surface area. In size S (80 to 105 kg) it is only 21.77 m², whilst its predecessor was 22.2 m².

Launch: while the design is totally different, the launch characteristics remain completely the same. The MENTOR 7 Light features an uneventful launch and requires no special tricks on the ground or during take off. It inflates a little more leisurely than the MENTOR 6 Light and has even less tendency to overshoot. It does not pull sideways and there is no yawing. If necessary, the wing is easily braked using the C-risers. Asymmetrical corrections using the C-risers work less well as there are no C3 lines. For lateral directional control, NOVA recommends using the brakes.

The **HAC handles (Height Adjustable C-Handles)** are the first thing to get used to when preparing for launch. The carbon grips on the C-riser, which are height-adjustable in six positions, require a little more attentiveness. Philipp Medicus: "All pilots who have flown this wing got used to this very quickly. The advantages of the HAC handles in flight (instant correction of the angle of attack without loss of



performance) clearly outweigh the small handling disadvantage. The MENTOR 7 Light is designed for flight!"

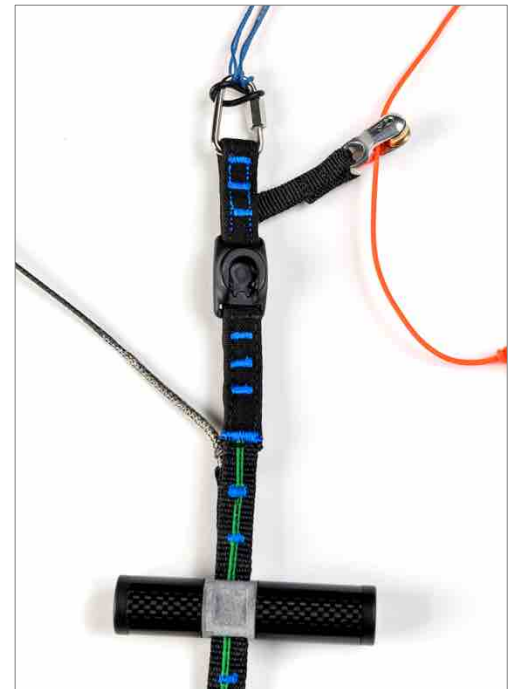
Glide performance and accelerated flight: there are gliders that glide excellently in laboratory conditions (i.e. no wind at five o'clock in the morning). But on an epic day, this performance miraculously disappears due to pitch and roll movements, pilot control inputs, canopy deformations, and possibly altitude loss due to collapses. With all models in the MENTOR series, the actually flyable performance on such record days has always been their greatest strength.

With the new MENTOR 7, this is precisely what is even more strikingly pronounced: it cuts through moving air masses like a high-performance wing. The 2.5-liner design makes it particularly solid when accelerated. And should turbulence require pilot input, this is done via the HAC-handles without performance-reducing deformations to the canopy. At the same time, the SpeedBrake 2.0 riser delights with how **little operating force** is needed.

The faster the pilot flies and the longer they are in the air, the more these advantages become obvious. Those with no previous experience of C-steering can take a relaxed approach to learning this new flight technique with the MENTOR 7 Light and gain a real performance advantage for themselves.

NOVA has optimised the design of the MENTOR 7 Light for accelerated flight: **high top speed with a very flat polar curve**. The profile ensures a high degree of pitch stability even at low angles of attack. In numerous simulations, the ballooning as well as the stress distribution was refined to minimise the deformation of the glider when accelerated. The cell openings are designed so that the internal pressure remains ideal even in accelerated flight. The result is excellent glide performance with an exceptional level of stability. The more the pilot accelerates, the more stable the wing feels. A huge difference to all its predecessors!

Thermalling: while the top speed of the MENTOR 7 Light is clearly higher than the MENTOR 6, the trim speed is a little lower. This, as well as the optimised brake geometry, make it a real climbing machine. The thermal flight behaviour of the MENTOR 7 Light impresses with how neutral it feels. When





turning, the glider always gives defined feedback via the brake and hardly ever deflates or collapses.

Therefore, NOVA does not recommend any specific technique to turn in thermals. Inside or outside brake, more or less weight shift, narrow or wide radius, flat or steep banking - the glider doesn't care. It convinces with its excellent balance and delights with a tendency to pull into the best climb on its own.

Rapid descent: classic big ears (A3) work, but are less comfortable due to the split A-risers. Instead, NOVA recommends pulling the outer B-lines. The **B3 Stall** offers a higher sink rate with lots of stability and is comfortable to hold thanks to the separate "Baby-B risers" on the B3 lines. The conventional B-Line stall is not possible due to the wing's design as a 2.5-liner. The behaviour during a spiral dive is typical for its class and can be controlled easily.

Passive safety: the MENTOR 7 Light also impresses with its manageable extreme flight behaviour. Accelerated collapses are even more gentle than on the previous models. The very late stall point of the inner brake when thermalling is particularly unusual. Because - especially when circling near terrain - serious accidents are a recurring occurrence, this means a relevant increase in safety. The MENTOR 7 Light stands out due to its very **high collapse resistance**. The lowest aspect ratio (5.5) in the high-end EN-B range is also a real plus in terms of safety, because this **reduces the likeliness of cravats**. Altogether these characteristics, as well as the high level of smoothness in flight, give the pilot a great feeling of confidence - an important prerequisite for very long-distance flights.

There is not a great deal to say about **landing** other than that the MENTOR 7 Light flairs very nicely.

Weight ranges: When looking at the technical data of the new MENTOR 7 Light, you will notice that the maximum take-off weight is 5kg higher than NOVA's usual weight ranges - despite a smaller projected area than on the Mentor 6. Philipp Medicus explains: "Originally we wanted to keep the customary NOVA weight ranges (e.g. size S with 80-100 kg). However, during the flight tests we noticed that the wing still climbs very well even with 5 kg more. Therefore, we thought that some XC-pilots would like to take advantage of flying



NOVA MENTOR 7 Light - Facts

2.5-liner, EN/LTF B, 66 cells and smart lightweight design

- **Aspect ratio:** 5.50 flat, 4.18 projected
- **Sizes:** XXS to L
- **Area** projected: 17.90 / 19.80 / 21.77 / 23.72 / 25.70 m²
- **Canopy weight:** 3.65 / 3.90 / 4.15 / 4.40 / 4.65 kg
- **Certified take-off weight:** 55-85 / 70-95 / 80-105 / 90-115 / 100-130 kg
- **SpeedBrake Riser 2.0:** smooth and very effective steering as with a 2-liner
- **HAC-Handles:** height-adjustable carbon handle on the C-riser with six possible positions
- **NOVA Double 3D-Shaping:** fewer creases on the leading edge
- **NOVA Air Scoop:** optimised air intake that increases the internal pressure
- **Mini-Ribs:** more aerodynamic trailing edge
- **Smart lightweight design:** Weight optimised cloth and construction
- **Speed bar pulleys:** Ronstan ball bearing pulleys
- **Full NOVA guarantee**

with a higher wing loading to achieve an even higher average speed on days with strong thermals. Conversely, it is certainly not absolutely necessary to load the MENTOR 7 Light at the upper end of the weight range. It is still very agile and stable even in the middle of the weight range, while the top speed remains really engaging!"

Complete suitability for everyday use: NOVA's light models have always been characterised by "smart lightweight design" (does not apply to the ultra-light models XENON, BANTAM and DOUBLESKIN). This means that the pilot has practically no disadvantages in handling or durability. NOVA Light wings have risers that do not twist easily. The lines are easy to sort, easy to recognise and tend not to tangle. And the cloths are chosen so that these wings are 100 percent suitable for everyday use. They therefore come with the full NOVA warranty and the pilot only has to make minimal compromises on durability. Of course, this also applies to the MENTOR 7 Light - which makes it interesting for the ever-growing target group of hike & fly pilots.

The MENTOR 7 Light appeals to all cross-country pilots who want to take their skills to a new level within the EN B class and with a state-of-the-art "Mentor" at their side - coupled with low weight and small pack size.

The wing is expected to be available in four colours in five sizes from late spring 2022. Find detailed information at www.nova.eu/mentor-7-light.

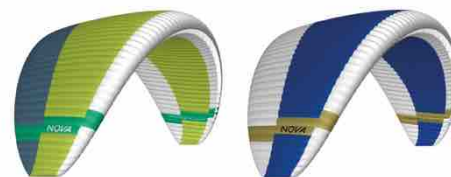
Product and image photos can be downloaded at www.nova.eu/de/dealer/support/gliders/.

NOVA is an innovative and reputable paragliding company, whose highest concerns are quality, safety and the enjoyment of flight. NOVA develops and manufactures paragliders and accessories for beginner, intermediate and ambitious advanced pilots - with a clear focus on cross-country flying. The employee-owned company was founded in 1989 and has a healthy equity base. The headquarters are in Terfens, Austria. NOVA has two production facilities in Hungary and Vietnam, which conform to the highest social and environmental standards. The company has a worldwide distribution network and is one of the market leaders in paragliding.



RED

GOLD



LIME

BLUE