

KIMFLY



X21

	SERIAL NUMBER		
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TEST FLY:

LOW WEIGHT

GREAT HANDLING

AMAZING PERFORMANCE

EASY TAKE-OFF

X21 is a mini-wing, but nice performance, great handling and wide speed range place it close to normal paragliders.

X21 was mainly designed for mountain climbers, hikers and alpinists to add another dimension to their adventure....to add paragliding.

Thanks to good performance, the **X21** is also nice companion for local soaring in stronger wing conditions and paragliding in any other circumstances, where light and easy gear is needed.

CONSTRUCTION AND MATERIALS

Construction and materials at X are chosen to make the wing light, fast, simple .

The **X21** has 26 cells, mini ribs in trailing edge, PVC sticks that reinforce the front edge of profiles.

For better canopy stability there is a tension tape through whole D line.

There are four upper gallery lines A, B, C and D, but only three main lines A, B and C, what makes the **X21** hibrid three-liner.

Upper lines gallery has 25 lines, that is from each profile, for best weight distribution.

Reisers are made of 10 mm tape, with speed system. Using the speed system, we get additional 8-10 km/h of speed.

Symmetric Collapse – “Big Ears”

Big ears are an effective rapid descent maneuver. At a load of 100 kg, the sink rate is 4,5 m/s at horizontal speed 38-40 km/h. After releasing , the **X21** returns to normal flight smoothly.

B-Stall

In B-stall the **X21** reaches a sink rate of 7 m/s or more. The **X21** stays very stable above pilot in B-stall, there is no swinging or rotation.

After releasing the B raises the wing returns to normal flight very easy. In case of fast releasing of raisers, the wing can swing forward up to 40 degrees.

Deep Spiral

The **X21** enters the spiral fast and easy. It reaches vertical speed of 14m/s in a 1,5 circle at full break length.

To control the speed and angle, you should use brake line.

The spiral exit should be active!

WARNING – the **X21** can enter stable spiral dive. In that case you need to be familiar with active spiral exit procedure. Do not use the **X21** as a spiral trening wing!

Full stall

The **X21** enters full stall by pulling break lines over 50 cm. Before collapsing the canopy, you will feel considerably increased force in break lines and experience swinging the canopy backwards. In next seconds the wing will stabilise above pilot with small swinging forwards-backwards.

By exit from full stall, the wing swings forward up to 45 degrees.

Frontal collapse

After frontal collapse, the canopy opens and returns to normal flight fast and easy.

Side collapse

At test side collapsing, the canopy stabilises and returns to normal flight with up to 120 degrees rotation and forward swinging up to 45 degrees.

50% collapse and opposite side rotation is easily possible.

ALL TEST FLIGHTS AND TEST MANEUVRRES WERE PERFORMED WITH 100 kg PILOT WEIGHT.

Warnings

- The X21 is a mini-wing. Due to its flight dynamics, high responsiveness and speed it is intended for experienced pilots only. USE of the X21 is at **YOUR OWN RISK!**
- Although it is very dynamic and highly responsive, the X21 is by no means an acro wing.
- The X21 is not a paramotor wing.
- Flying in rain can cause a wing to stall.
- Flying in inappropriate flight conditions (turbulence, strong wind, close to storms...) is dangerous.
- Performing wing-overs and deep spirals at low altitudes is dangerous.
- Check the glider for technical faults before every flight.
- Always perform the 5 points control rule.

Folding and Storing

The X21 can be folded in any way (cell by cell or any other method). When folding it is important not to turn the leading edge up and backwards, but to place the glider in transportation bag with leading edge looking up freely. This way reinforcement rods in leading edge are bent the least.

Technical Check

Technical check of the wing must be conducted every two years or 150 flights by manufacturer or authorized person.

TEHNICAL DATA

	X21
Flat Area	21m ²
Nr Cells	26
Flat Wingspan	9,5m
Flat AR	4,3
Projected Area	17,4m ²
Trim speed km/h	39km/h – 90kg
Speed max km/h	52km/h
Take-off weight min	60 kg
Weight	2,5 kg

MATERIAL

Top surface	27g PORCHER skytex 27
Lower surface	27g PORCHER skytex 27
Ribs, diagonals	27g PORCHER skytex 27
Lines upper gallery	EDELRID 8000
Middle lines	EDELRID 8000
Main lines	EDELRID A,B,C- 190 daN - 1,5 mm - aramid
Brake lines	EDELRID 60 daN PES – aramid - 1,0 mm
Brake line main	EDELRID 190 daN - 1,5mm - aramid
Raisers	Band 10mm
Carabiners	PEGUET inox MR
Rods	Nylon

LINES LENGHT CONTROL SHEET X21 2020-1

x21	A	B	C	D	Breaks
1	6125	5990	6075	6180	6570
2	6035	5900	5985	6095	6420
3	6015	5890	5975	6080	6390
4	6045	5925	6015	6115	6335
5	6030	5915	5995	6075	6225
6	5990	5880	5965	6040	6240
7	5970	5860	5940	5995	6185
8	5965	5860	5945	5995	6080
9	5900	5795	5880		6095
10	5795	5695	5770		5945
11	5690	5595	5660		5845
12	5590	5510	5550		5810
13	5430	5315	5425		
14	5250	5220	5320		

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