



## WHY AN „EXTENDED WEIGHT RANGE?“

With the latest generation of paragliders, such as our newly developed **GRAVIS²**, much care has been taken to ensure that the paraglider's optimal performance is realised within the „recommended weight range“.

### THAT MEANS THAT...

- passive safety
- the thermalling behaviour (climbing performance)
- the gliding performance
- the sink rate

are as constant as technically possible over almost the entire weight range. For this reason, the number of glider sizes has been increased and the weight range reduced in each size. This is to help pilots find the ideal glider size and achieve optimal performance. It is, however, undisputed that flying over the lower or upper weight limit has an impact on flight behaviour and handling.

There is a slight change in climbing performance and speed, depending on glider loading within the „recommended weight range“. However, the glider's overall performance remains the same throughout the entire weight range.

Pilots that prefer a smaller, more agile canopy with higher speeds, often have the problem that their 'All Up Weight' (take-off weight) is too high on a smaller wing size, and too close to the minimum 'All Up Weight' with a larger size.

In order to solve this problem, we underwent certification-testing with gliders in the extended weight range and thus obtained legal certification and EN Rating for the extended weight range. Here the model is test flown in the lower and upper weight ranges. The highest test rating for all three flights then dictates the EN classification, which is valid for all weight ranges.

**Note:** Using the extended weight range can be used particularly well with gliders from the „entry“ range to „mid B“ range, because a higher wing loading has little effect on the wings' reaction in flight, the EN classification remains the same (Providing the upper weight range is moderately expanded).

If the glider is now flown in the „extended weight range“, the higher wing loading results in a higher trim speed and therefore more dynamic and agile flight behaviour. This is good for alpine thermic conditions and in strong winds. On the other hand, if the glider is flown in the „lower weight range“ the paraglider is a little slower, less agile and therefore a little smoother. This is ideal in weak thermic conditions.

This offers new possibilities when it comes to choosing a glider, so that even in the small sizes (e.g. **GRAVIS²** in XS or S) heavier pilots, if looking for light „walk & fly gliders“, can retain a EN B Certification.