

Testing heavily used Slackline Webbing





Test setup

- Load cell measures max tensions
- 2-3 samples per webbing / rope
- zilla 2 and zilla 3 single wrap

White Magic



- Homeline Bernhard Witz
- rigged many years as highline

strength (new in Zilla 2)

33 kN

test results

21,3 kN

reduction

35 %

Core 1

- Homeline Thomas Buckingham in Bern, Switzerland
- rigged 4 years as tree midline 112m long
- around 6-8 kN base tension
- ca. 150 leashfalls



strength (new in Zilla 2)

35 kN

reduction

test results

27,8 kN - 29,2 kN

17% - 21 %



Results: PES

- Core 1 was at 6-8kN for 4 years
- difference between 2 layer and 4 layer
- thickness of webbing -> less UV impact
- also less use (less mechanical abrasion)

Core 1

strength (new in Zilla
2)

test results

35 kN

27,8 kN - 29,2 kN

reduction

17% - 21 %

White Magic

strength (new in Zilla
2)

test results

33 kN

21,3 kN

reduction

35 %

T-Wave

- Homeline Thomas Buckingham in Bern, Switzerland
- rigged 5 years as tree midline 25m long
- around 1,5 kN base tension
- ca. 500 leashfalls



strength (new in Zilla 2)

test results

30 kN

15,2 - 19,5 kN

reduction

35 % - 49%

Wave inside tube



strength (new in Zilla 2)

test results

15 kN

8,4 - 9,8 kN

reduction

35 % - 44%



Results: threaded tube

- Theaded PAD Tube has a little extra safety:
Inside was still intact after the break of the outside

- Tubular webbings without threaded inner webbing can not be recommended in permanetly rigged highlines

Rope 10,5mm



- Homeline backup (T-Wave)
- rigged 5 years
- hand tight
- ca. 150 leashfalls

strength new in Figure 8

test results

18 kN

12,8 kN

reduction

29 %

Conclusion



- All samples where weaker after being permanently rigged

Factors for this:

- Exposure to UV-light
- Mechanical influence
- Weather
- Other influence

Conclusion



4-5 years permanent setup caused:

PAD

30-50% reduction

PES

17-35% reduction

- permanently rigged lines have to be checked regularly!
- When clearly damaged or colors fade out, the webbing should be exchanged!
- Don't use too weak webbings!

