



ELONGATION

Elongation and its reduction have increasingly become a focus of interest in recent years, as low-stretch ropes provide higher precision, greater safety, and better efficiency in work, especially in the case of long rappelling distances or complex rescue scenarios such as on horizontal ropeways.

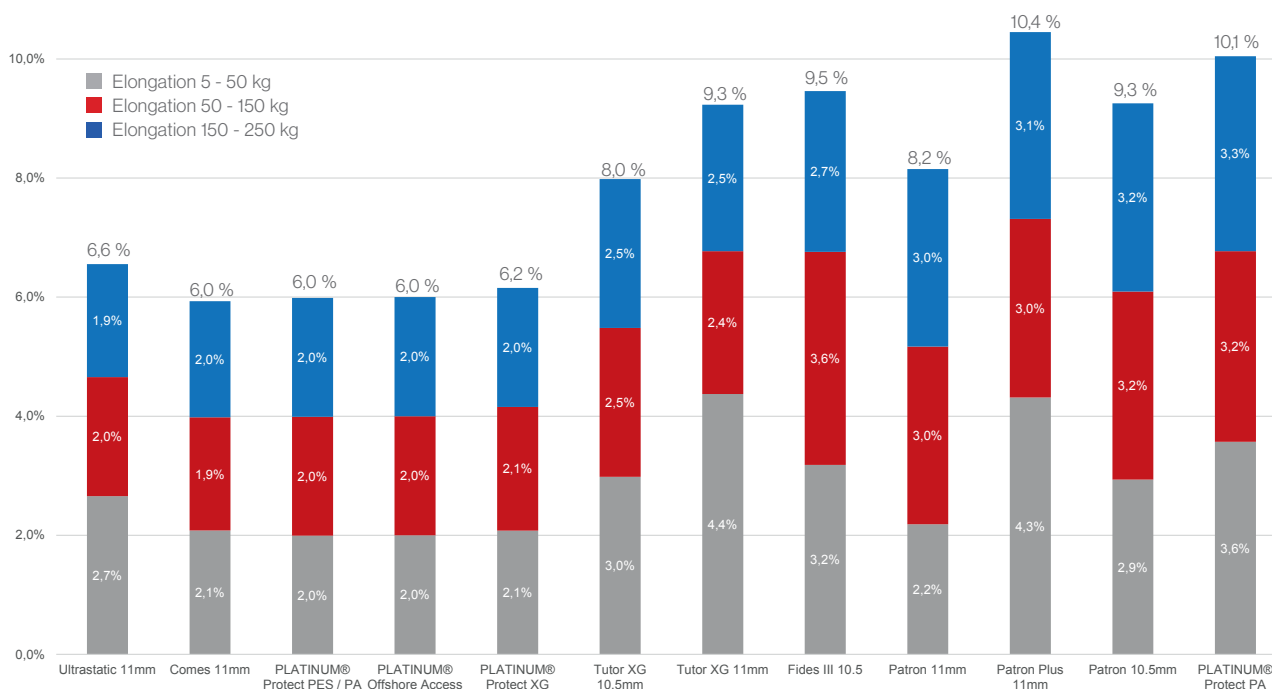
Elongation put to the test

In the case of a fall into a rope to EN 1891 A, the resulting impact force must not be greater than 6 kN. In order to absorb the fall such that this value is not exceeded, the rope needs a certain amount of elongation that is achieved by adjusting material characteristics and rope construction types as necessary.

The following test compares the elongation of TEUFELBERGER ropes to EN 1891 A under different loads:

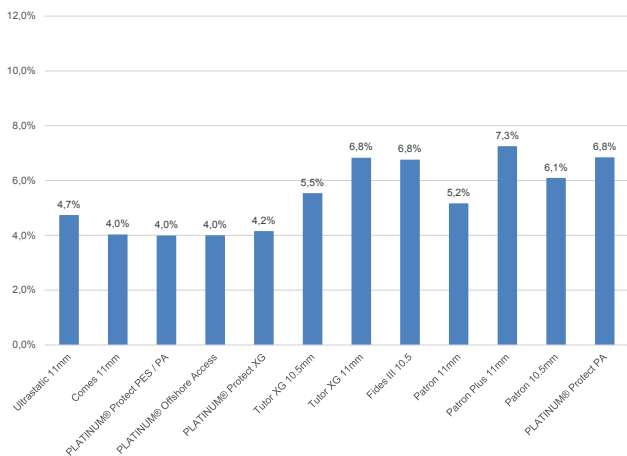
- ✓ Elongation in % under a load from 5 - 50 kg (incl. constructional elongation)
- ✓ Elongation in % under a load from 5 - 150 kg (normal working load: height worker + tools)
- ✓ Elongation in % under a load from 5 - 250 kg (rescue load: rescuer + equipment + patient)

Rope	Diameter mm	Elongation	Elongation	Elongation	Elongation	Elongation
		5 - 50 kg %	5 - 150 kg %	5 - 250 kg %	50 - 150 kg %	150 - 250 kg %
Ultrastatic	11.0	2.7	4.7	6.6	2.0	1.9
Comes	11.0	2.1	4.0	6.0	1.9	2.0
PLATINUM® Protect PES/PA	10.5	2.0	4.0	6.0	2.0	2.0
PLATINUM® Offshore Access	10.5	2.0	4.0	6.0	2.0	2.0
PLATINUM® Protect XG PES/PA	11.0	2.1	4.2	6.2	2.1	2.0
Tutor XG	10.5	3.0	5.5	8.0	2.6	2.4
Tutor XG	11.0	4.4	6.8	9.3	2.5	2.5
Fides III	10.5	3.2	6.8	9.5	3.6	2.8
Patron	11.0	2.2	5.2	8.2	3.0	3.0
Patron Plus	11.0	4.3	7.3	10.4	2.9	3.1
Patron	10.5	2.9	6.1	9.3	3.2	3.2
PLATINUM® Protect PA	10.5	3.6	6.8	10.1	3.3	3.3

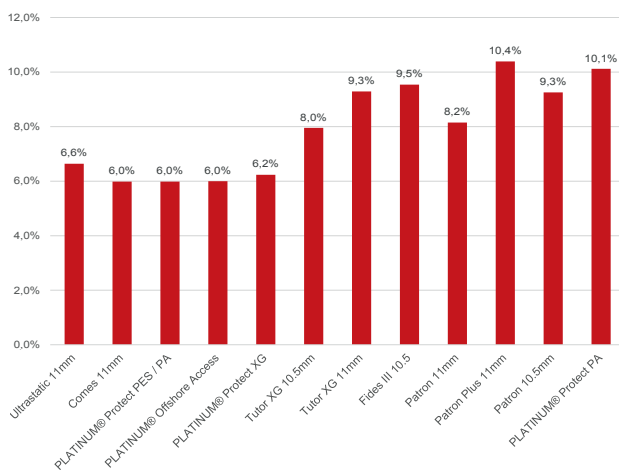




Elongation in % from 5 - 150 kg



Elongation in % from 5 - 250 kg



Elongation comparison

