

## Shortening? Out of the focus...



### **STABILO**

Solid plastic-cored wire ropes are diameter-stable and have a low-stretching behavior.



# The elongation remains marginal – because the core does not give way for strand settling.

## Wire rope with full plastic core: why?

If the strands of a wire rope settle and work into the core [1], the diameter decreases, the rope lengthens and the lifetime is limited because nicking – that will eventually lead to wire breakage – develops when set to inter-strand contact.

How can this be prevented? The answer has – theoretically – been known for a long time: the interior, which is surrounded by the strands, must be completely filled. In the Nineties, FATZER developed a procedure, patented in 1998, that guarantees a compact and stable filling: The DL-PE® fullplast core, which is heated-up during the closing stage is dimensioned so that the plastic is pressed between the strands [2]. By that so-called SHC® concept a supporting member is created that stabilizes and cushions the strands, maintains the spacing of the strands, and – thanks to forced closing – the correct separation.

In the meantime, STABILO ropes have proved themselves a hundred-fold – particularly on high-performance installations with high transportation capacity. The reason: the rope remains stable with regard to both diameter and stretching, so that no significant permanent elongation develops, making re-splicing work unnecessary before the most favorable point of time.

## The design of the STABILO rope:

- six strands of conventional or compacted design [1]
- core: DL-PE® polyethylene rod preheated during the closing stage (SHC®) [2]
- for funiculars: reinforced with copper strand for weight-purposes

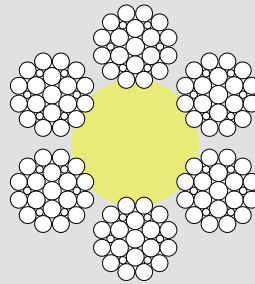
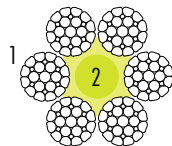


Fig. 1: cross-section of a new rope with conventional core and after settling of the strands

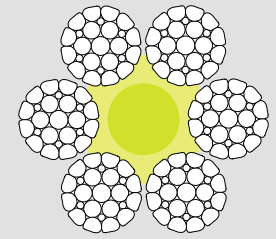
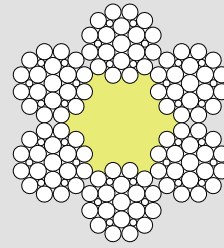
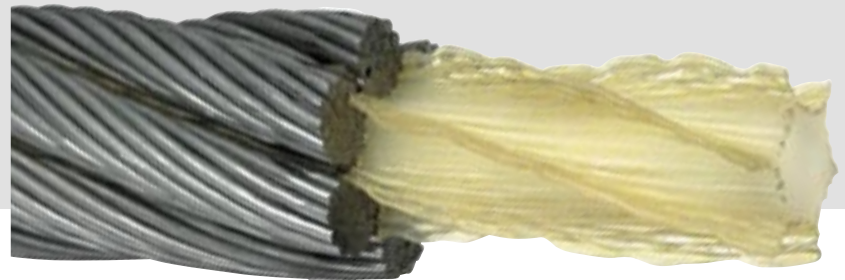
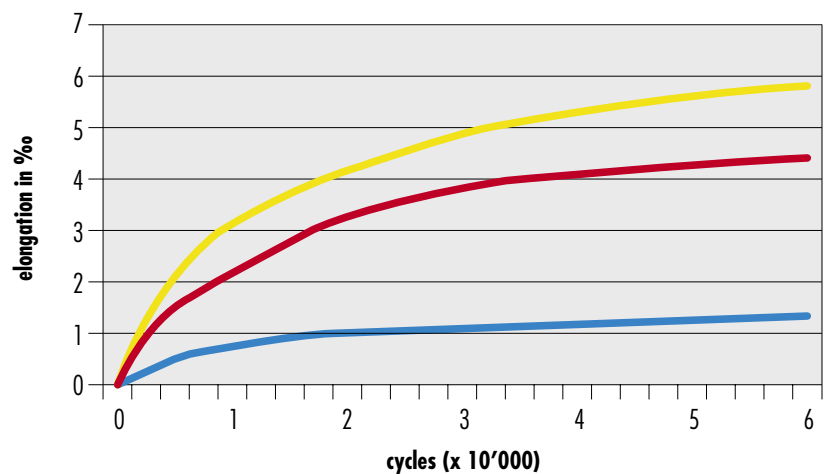


Fig. 2: cross-section of STABILO rope with the DL-PE® fullplast core



## Elongation as a function of number of cycles



## Elongation or stretch?

Elongation is the permanent longitudinal extension, caused by the settling of the strands into the core bed and the tightening of the wires in the strand. On the other hand, stretch is elastic and develops under the influence of force and temperature. Stretch reduces when the original values are reinstated.

Manila fiber core

Polypropylene fiber core

STABILO compact core

## The most impressive features of STABILO wire rope:

- minimal elongation
- temporal progression of the elongation can be projected within tight tolerances
- embedding of the strands up to the strand shoulders thanks to the DL-PE® and SHC® concept
- lubricated strands
- high consistency and stability of the rope diameter
- more resistant to cross-pressure, bending and torsion than ropes with fibre core

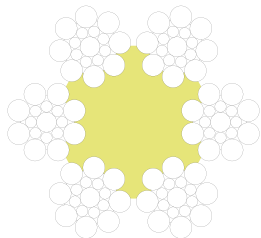
## Where STABILO wire rope have the edge:

Their typical field of application is revolving ropeways. They are the prime choice for operators of lifts and ropeways that cannot tolerate downtime for re-splicing, or only at planned times. For funiculars with convex slope, STABILO ropes with copper reinforced core provide the necessary weight.

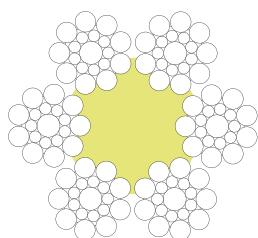
---

## STABILO ropes: feasible in virtually every constructional design

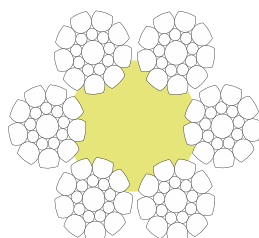
- in all strand constructions: 6x15, 6x17 and 6x19 Seale, 6x21 and 6x25 Filler Wire, 6x26, 6x31, 6x36 and 6x41 (46/47) Warrington-Seale
  - with conventional or compacted stranding
- 



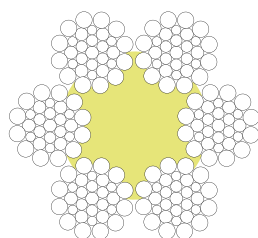
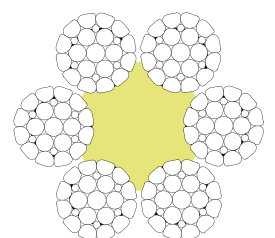
6x17 Seale, nominal- $\varnothing$  34 - 42 mm



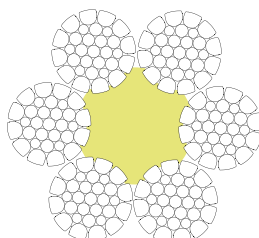
6x19 Seale, nominal- $\varnothing$  34 - 42 mm



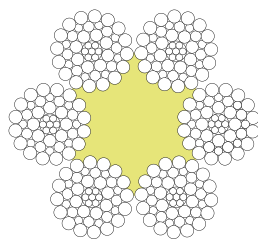
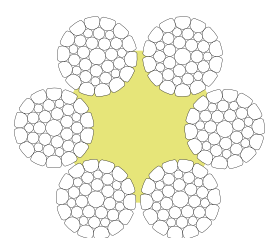
6x25 Filler Wire, nominal- $\varnothing$  34 - 45 mm



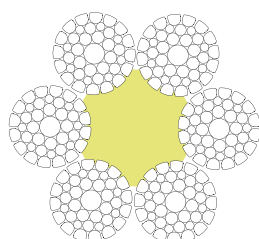
6x31 Warrington-Seale, nominal- $\varnothing$  34 - 50 mm



6x36 Warrington-Seale, nominal- $\varnothing$  40 - 60 mm

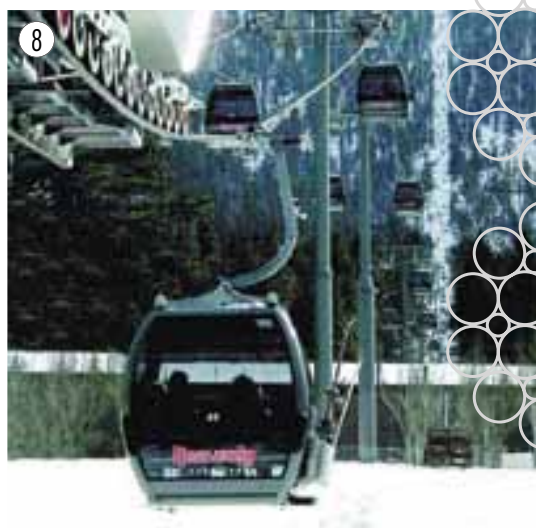


6x41 [46/47] Warrington-Seale, nominal- $\varnothing$  40 - 60 mm



Detailed technical information can be called-up on web site ([www.fatzer.com](http://www.fatzer.com)) or can be requested from us directly ([info@fatzer.com](mailto:info@fatzer.com), phone +41 71 466 81 11, fax +41 71 466 81 10). On request, we will be happy to provide you with our overall catalogue.





## All of them rely on STABILO wire rope...

- 1 Kitzbühel: Austria
- 2 Sölden: Austria
- 3 Neustift/Stubai: Austria
- 4 Plan de Corones: Italy
- 5 Gaustablikk: Norway
- 6 Hongkong: China
- 7 Stubai: Austria
- 8 Heavenly: USA