

**PHISICAL PROPERTIES**

**TENACITY**  
**3 time more resistance than STANDARD INOX WIRE**

**UHMWPE fiber** it's a new generation exotic super fiber , better know with brands name of Dyneema or Spectra , with fisical property extremely higher than standard wire .  
 Comparing the same size , **SUPER FIBER WIRE** can be consider 3 time more resistance than standard inox wire

EXEMPLE :  
 rotor lace **SUPER FIBER WIRE** → 1 mm → 100 daN  
 rotor lace **STANDARD INOX WIRE** → 1 mm → 35 daN

**WEIGHT**  
**10 time lighter than STANDARD INOX WIRE**

The specific weight of UHMWPE fiber it's 0,97 kg/dm<sup>3</sup> : comparing to **STANDARD INOX WIRE** , that it's 8/9 kg/dm<sup>3</sup> it's **10 time lighter** .

The quantity of line use for this application it's limitted, about 50 cm for each shoe , and probably weight efficiency it's not so important , but for the filosofy connected to performance spots , lightness can be consider an important marketing key , and a property that need always research

**ABRASION RESISTANCE**  
**3 time more resistance than STANDARD INOX WIRE**

We can consider abrasion like a localized micro break .  
 The abrasion resistance of fiber wire it's connected to the tenacity of all micro fibers , so in this case tenacity can be consider a good indicator of abrasion resistance .

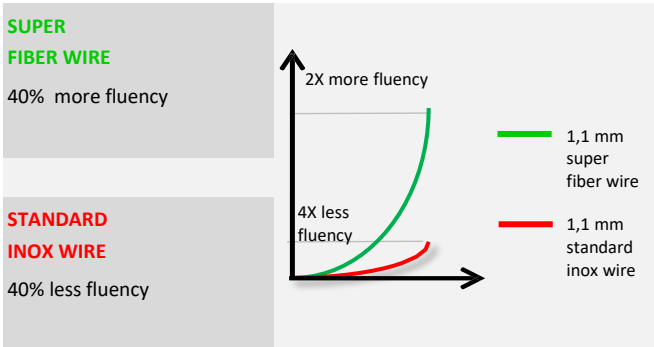
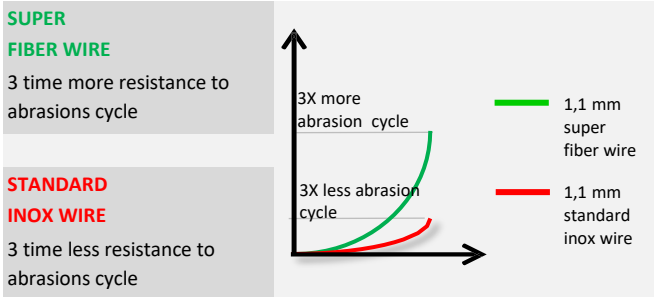
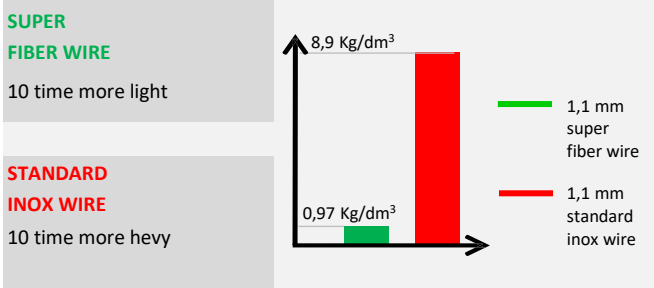
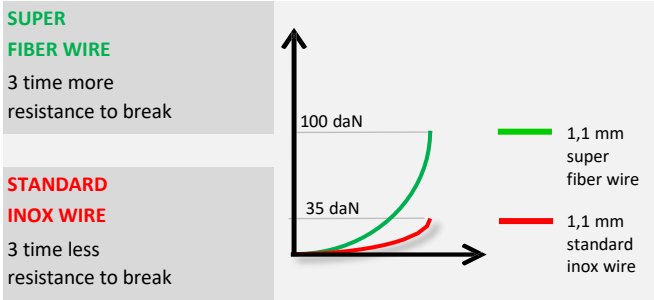
Considering that the tenacity of UHMWPE is 3 times higher than **STANDARD INOX WIRE** , the abrasion resistance is decidedly superior.

**FLUENCY**  
**40% more fluency than STANDARD INOX WIRE**

The fluency it's extremely importnt in this application.  
 More the line it's fluency and with minimum friction , more the regulation will be perfect .

**IRIDIUM UHMWPE** thanks to its particular molecular structure have very high fluency , 2 time more comparing **STANDARD INOX WIRE** .

This property can be measured with a parameter named **coefficient of friction** . This value can measure the friction of the line around the circuit. **SUPER FIBER WIRE** has a sliding coefficient greater than 100% compared to the **STANDARD INOX WIRE**.



**COLOR'S RANGE**  
*43 time more variants than STANDARD INOX WIRE*

**STANDARD INOX WIRE**  
 only 1 color



**SUPER FIBER WIRE**  
 43 colors

Colors available for all size					Colors available only for size ≥ 1,1 mm	
A	B	C	D	E	F	G
solid color	white with colored mark	color with black mark	snake skin	black with colored mark	melange white / color	melange black / color
1 white solid color	white w/ black mark	white w/ black mark	snake white / black	black w/ white mark	melange white / black	melange black / white
2 yellow solid color	white w/ yellow mark	yellow w/ black mark	snake yellow / black	black w/ yellow mark	melange white / yellow	melange black / yellow
3 orange solid color	white w/ orange mark	orange w/ black mark	snake orange / black	black w/ orange mark	melange white / orange	melange black / orange
4 red solid color	white w/ red mark	red w/ black mark	snake red / black	black w/ red mark	melange white / red	melange black / red
5 green solid color	white w/ green mark	green w/ black mark	snake green / black	black w/ green mark	melange white / green	melange black / green
6 light blue solid color	white w/ blu mark	blu w/ black mark	snake blu / black	black w/ blu mark	melange white / blu	melange black / blu
7 black solid color						

As it's possible to see from the simulation below, thanks to our wide range it is possible to create a large number of solutions allowing designers to explore solutions that were not possible before



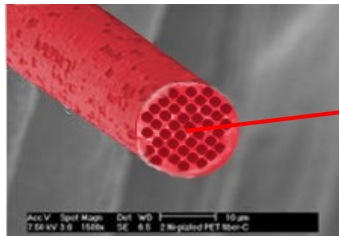


**ROTOR LACE  
SUPER FIBER WIRE**

**uhmwpe uncovered**

**THE DURABLE OF OUR COLORS**

paste-dyed yarn color system



The pigment it's not simply attached to surface .  
The pigment it's inside the fiber , put durring gel spinning process.



**This mean that color it's permanent**

**TOTAL ABSENCE OF MEMORY**

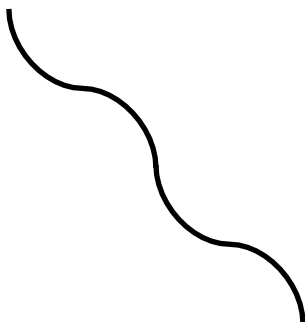
0% memory than STANDARD INOX WIRE

Differnce from STANDARD INOX WIRE, our SUPER FIBER WIRE it's without any memory.

This is very important for this application , because the line run in a circuit full of tight curves , and memory can compromise the normal functioning .

**STANDARD INOX WIRE**

memory after few cycles



**SUPER FIBER WIRE**

memory after 1000 cycles

