

# SELECTION GUIDE MATERIALS

OUR RANGE OF MATERIALS IS OUR GUARANTEE OF SATISFACTION.  
WE HELP YOU TO CHOOSE. CHOOSE WELL.



Small Diameters  
Lengths: up to 30 m  
For pipes with a diameter up to Ø 50 mm

FEATURES															
GENERAL				PUSHING					PULLING			RECOMMENDATIONS			
MATERIALS	MATERIAL DIAMETER Ø mm	COLOUR	AVERAGE DURABILITY	EASY INSERTION	DIAMETER OF TURN Ø cm	EASY TURN	FRICTION	TWISTING STRENGTH	PUSHING STRENGTH	TENSILE STRENGTH	BREAKING STRENGTH	IDEAL PIPE Ø mm	OPTIMAL LENGTH m		
<b>MATERIALS FOR HOUSEHOLD INSTALLATIONS</b>															
<b>STANDARD RANGE</b>															
1	<b>NYLON</b> Solid Monofilament		3 mm 4 mm	● ●	Long	★★★★☆	2 cm 4 cm	High Normal	Normal	Normal	Normal	100 kg 120 kg	★★★★☆	16-20 mm 20-25 mm	10-15 m 10-15 m
	<b>BY-NYLON</b> Solid Monofilament		4 mm	●	Long	★★★★☆	4 cm	High	Normal	Normal	Normal	120 kg	★★★★☆	20-32 mm	10-20 m
2	<b>FLAT BAND STEEL</b> Polypropylene-Coated		4 mm	●	Medium	★★★★☆	8 cm	Very High	Low	Very High	High	130 kg	★★★★☆	20-32 mm	10-20 m
	<b>ROUND STEEL CABLE</b> Polypropylene-Coated		4 mm	●	Long	★★★★☆	6 cm	Very High	Low	High	High	130 kg	★★★★☆	20-32 mm	10-20 m
	<b>ROUND STEEL CABLE</b> Nylon-Coated		4 mm	●	Very Long	★★★★☆	6 cm	Very High	Very Low	High	High	130 kg	★★★★☆	20-32 mm	10-20 m
<b>PREMIUM RANGE</b>															
3	<b>FIBREGLASS ROD</b> Polypropylene-Coated		3 mm 3.5 mm	● ●	Short	★★★★★ ★★★★★	6 cm 8 cm	Very High Very High	Scant	Very High	Very High	80 kg	★★★★☆	16-50 mm	10-30 m
	<b>FIBREGLASS ROD</b> Nylon-Coated		3 mm	●	Short	★★★★★	6 cm	Very High	Scant	Very High	Very High	80 kg	★★★★☆	16-50 mm	10-30 m
4	<b>POLYESTER</b> Triple Twisted		4 mm 4.5 mm	● ●	Very Long	★★★★★	3 cm 3 cm	Very High	Minimum	Very High	High Very High	130 kg	★★★★☆	16-32 mm 20-50 mm	10-30 m
	<b>POLYESTER</b> Monofilament Twisted		3 mm	●	Maximum	★★★★★	2 cm	High	Very Low	Very High	High	80 kg	★★★★★	10-20 mm	6-18 m
	<b>POLYESTER</b> Monofilament Twisted		4.5 mm	●	Maximum	★★★★★	4 cm	High	Minimum	Maximum	Maximum	140 kg	★★★★★	20-50 mm	10-30 m

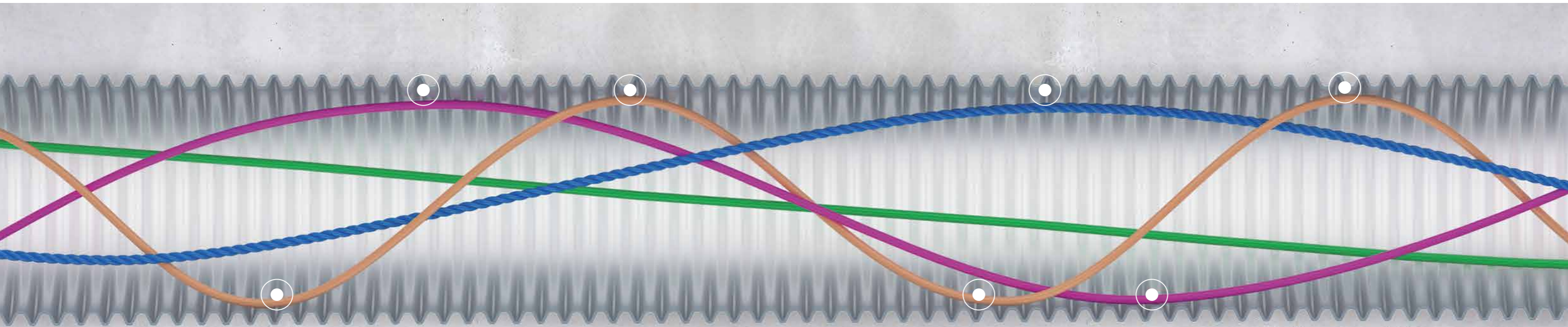
★ Normal   ★★ Good   ★★★ Very good   ★★★★ Excellent   ★★★★★ Maximum

MAIN FEATURES  
**FRICITION**

Friction inside the pipe is decisive in a fish tape's characteristics. Each material combines memory effect, shape, flexibility and texture in a different way.

Straighter materials with no memory, such as fibreglass or twisted polyester, create less friction in straight sections, whereas nylon, which snakes more, will always create greater friction.

● **FRICITION POINTS** (depending on the material)



LESS CONTACT,  
**BETTER INSERTION**

**STANDARD RANGE**



**NYLON / BI-NYLON**

● 4

It is the material with the greatest memory effect and therefore has more friction points. The new, reformulated bi-nylon is more flexible and has less friction.



**COATED STEEL**

● 2

Available with flat band steel and round steel cable. These materials have little memory effect and are very suitable for heavy duty work. Flat band steel, which weighs less, delivers better anti-friction behaviour.

**PREMIUM RANGE**



**FIBREGLASS**

● 0

These rods have great pushing strength, making them perfect against friction in straight sections. The 3 mm rod is more flexible and has less friction at bends. It is a fragile material with no memory effect.



**TWISTED POLYESTER**

● 1

Twisted material halves friction and has barely any memory effect. Triple twist (3 monofilaments) is more flexible and has less friction at bends. Monofilament twist is more rigid.

MAIN FEATURES

# TWISTING STRENGTH

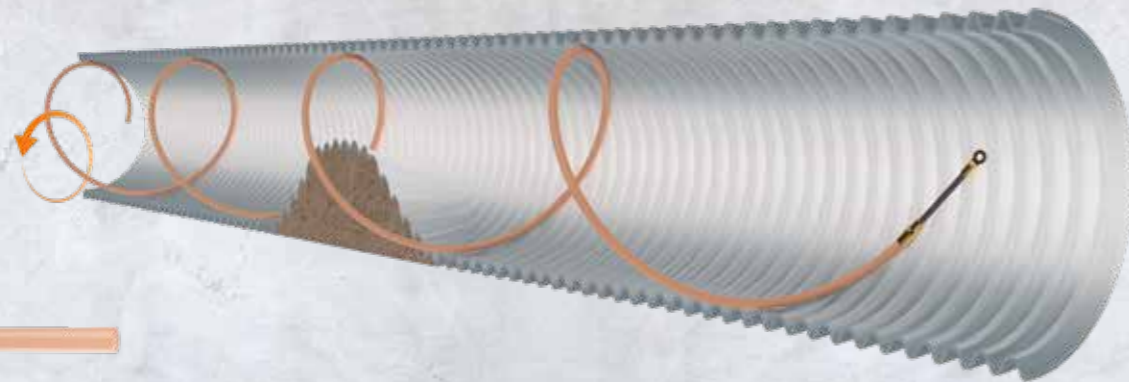
Turn control is indispensable for getting around possible obstacles, bends and other barriers the fish tape may encounter. It is a control characteristic.

When the fish tape is pushed and twisted at the same time, if the material remains firm it turns on its axis, and the movements made by the hands therefore reach the end, often finding the best route to push the cable through.

# GREATER TWISTING STRENGTH, GREATER CONTROL OVER THE SITUACIÓN

## STANDARD RANGE

Turn applied  
20



### NYLON / BI-NYLON

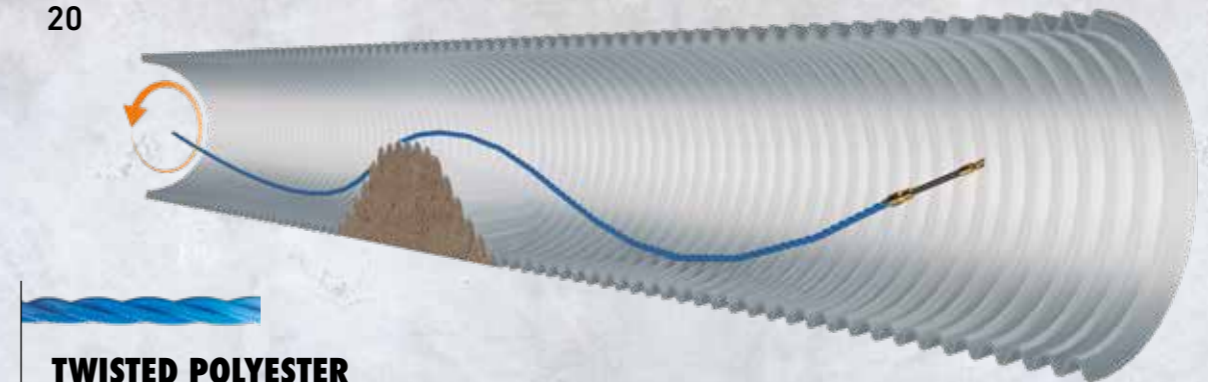
The material has an original curved shape and its behaviour in coils is excellent. When it is twisted at one end, a slight twisting movement is obtained at the other end.

Resulting turn

5

## PREMIUM RANGE

Turn applied  
20



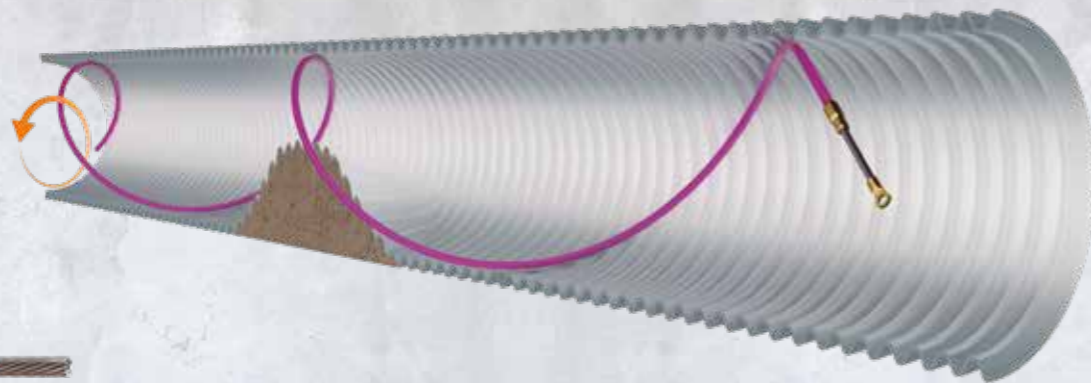
### TWISTED POLYESTER

It turns very little on its own axis, and therefore transmits twisting strength very well. Monofilament twist offers better characteristics. This product gives excellent control over the work done. Triple twist may open slightly with extreme turning.

Resulting turn

15

Turn applied  
20



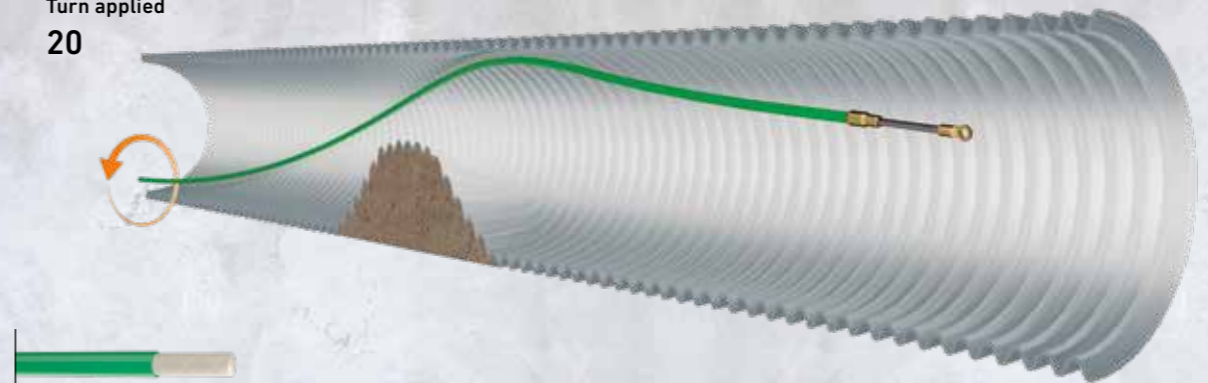
### COATED STEEL

The band is tightly twisted, thus offering good bending characteristics in any direction. However, flat band steel, being flat, has enhanced turning characteristics on one of its axes.

Resulting turn

10

Turn applied  
20



### FIBREGLASS

It is a very rigid material and perfectly transmits twisting strength along the entire length of the fish tape. It does not rotate on its own axis. We recommend increasing the diameter to the maximum for long distances and large pipes.

Resulting turn

20

## MAIN FEATURES

**PUSHING STRENGTH**

It is important that all the pushing strength applied when a fish tape is inserted into a pipe be transmitted all along its entire length to the other end.

The most rigid materials and those with the largest diameter do not bend, meaning the pushing strength from one end is more easily transmitted to the fish tape head.

**GREATER PUSHING STRENGTH,  
GREATER DISTANCE**

STANDARD RANGE

**NYLON / BI-NYLON**

These are monofilaments made with the material with the lowest pushing strength. In distances above 20 m their features are critical. When they encounter a major obstacle, they snake and occupy the entire pipe, mainly the 3 mm diameter ones, which are more flexible.

**COATED STEEL**

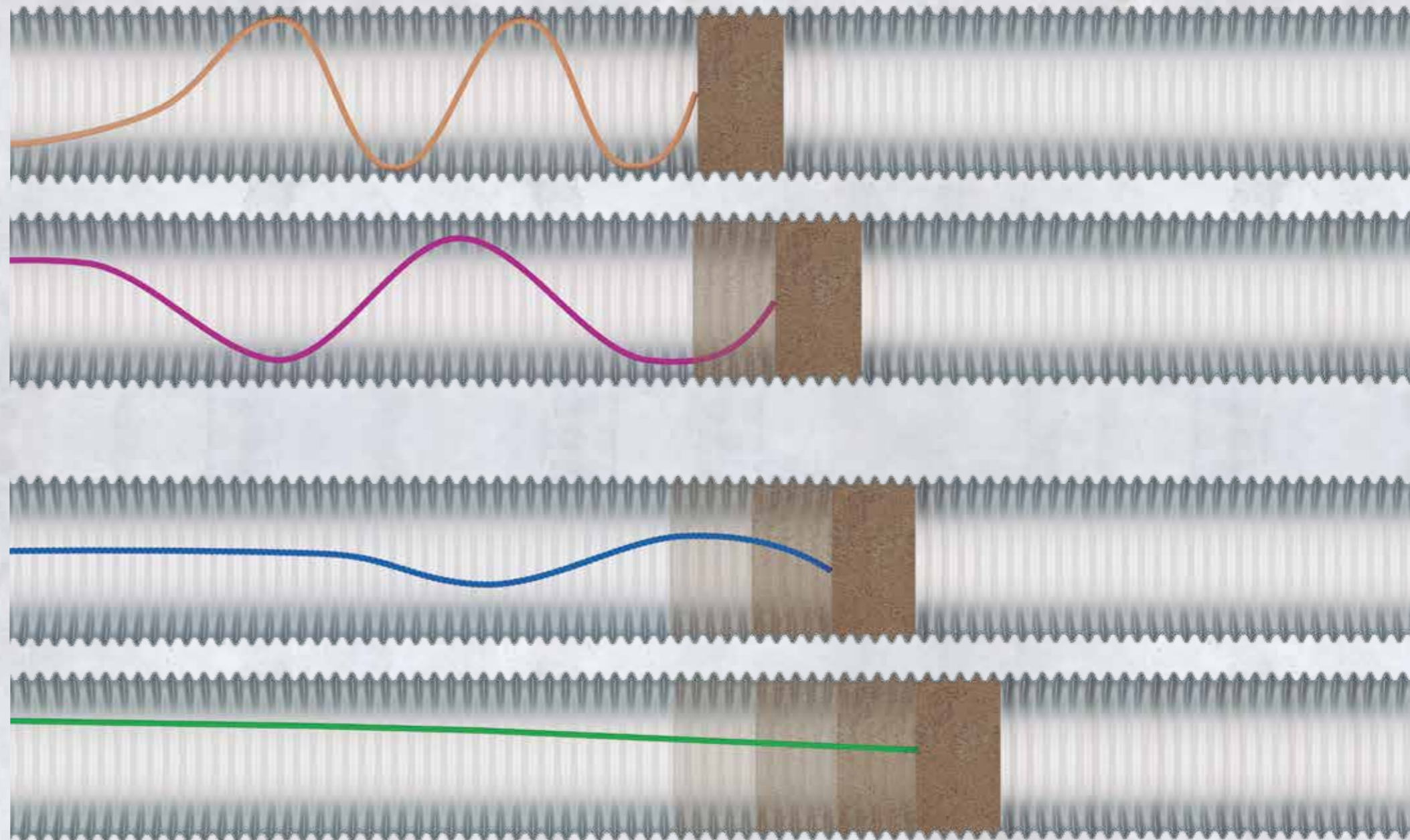
It has an excellent balance between flexibility and rigidity, giving it good features in terms of pushing strength. The round steel cable is heavier and can reach greater distances.

**TWISTED POLYESTER**

The monofilament twist is more rigid and permits greater pushing strength. It does not break when bent and easily regains its original shape without taking any damage. It can be used to reach longer distances.

**FIBREGLASS**

It is the material with the greatest pushing strength because the rods are made of flexible fibreglass. If the pipe is large, we recommend the use of a large-diameter rod in order to avoid looping and kinking on the inside that could break the product.



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Diameters medium and large  
Lengths: up to 300 m  
For pipes with a diameter up  
to Ø 200 mm

FEATURES															
GENERAL				PUSHING			PULLING			RECOMMENDATIONS					
MATERIALS	MATERIAL DIAMETER Ø mm	COLOUR	AVERAGE DURABILITY	EASY INSERTION	DIAMETER OF TURN Ø cm	EASY TURN	FRICTION	TWISTING STRENGTH	PUSHING STRENGTH	TENSILE STRENGTH	BREAKING STRENGTH	IDEAL PIPE Ø mm	OPTIMAL LENGTH m		
<b>MATERIAL FOR INDUSTRIAL INSTALLATIONS</b>															
<b>A</b>	<b>FLAT BAND STEEL</b> Polypropylene-Coated		6 mm	●	Long	★★★★☆	12 cm	High	Normal	High	Low	350 kg	★★★★☆	50 - 90 mm	20 - 50 m
			10 mm	●	Very Long	★★★★☆	25 cm	Normal	Normal	High	Low	1000 kg	★★★★☆	90 - 140 mm	50 - 80 m
<b>B</b>	<b>FIBREGLASS ROD</b> Polypropylene-Coated		4.5 mm	●	Medium	★★★★☆	10 cm	High	High	Very High	Minimum on straight line	120 kg	★★★★☆	40 - 90 mm	20 - 30 m
			6 mm	●	Medium	★★★★☆	15 cm	Normal	High	Very High	Minimum on straight line	200 kg	★★★★☆	50 - 140 mm	30 - 50 m
			9 mm	●	Medium	★★★★☆	30 cm	Low	Very High	Very High	Minimum on straight line	350 kg	★★★★☆	63 - 200 mm	50 - 120 m
			11 mm	●	Medium	★★★★☆	40 cm	Low	Very High	Very High	Minimum on straight line	500 kg	★★★★☆	63 - 200 mm	50 - 200 m
			14 mm	●	Medium	★★★★☆	60 cm	Low	Maximum	Very High	Minimum on straight line	600 kg	★★★★☆	63->200 mm	150 - 300 m
<b>C</b>	<b>POLYESTER TRIPLE TWIST</b>		6 mm	●	Very Long	★★★★★	6 cm	Very High	Very High	High	Minimum	300 kg	★★★★☆	40 - 80 mm	20 - 50 m
	<b>POLYESTER MONOFILAMENT TWISTED</b>		6 mm	●	Maximum	★★★★★	8 cm	High	Very High	Very High	Minimum	350 kg	★★★★☆	50 - 140 mm	30 - 80 m

★ Normal   ★★ Good   ★★★ Very good   ★★★★ Excellent   ★★★★★ Maximum