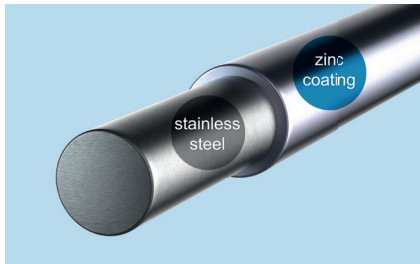


# Bezinox®

The wire which empowers you



## General description

Non-magnetic armouring wire with hot dip galvanised coating for subsea power cables. The wires shall have non-magnetic properties in magnetic fields generated by AC currents (50Hz).

## Application

Bezinox® is usually used as an armouring solution for HVAC submarine power cables to eliminate crevice and pitting corrosion, energy losses or reducing heat dissipation.

## Compliant product serving your needs

The characteristics of Bezinox® wire comply with the EN 10257-2:2011 standard. All wires are zinc coated in accordance with EN 10244-2:2009 norm. Core wire composition is in accordance with EN 10088-1: "Stainless steels - Part 1: List of stainless steels". Bezinox® can also be produced as a flat shaped wire. Guaranteed value of relative magnetic permeability is  $\mu_r < 5$ . Technical specification for core wire is in table below:

European standard	Group	Number code	Alphanumeric code	AISI / ASTM	UNS
EN 10088-1*	Austenitic	1.4373	X12CrMnNiN18-9-5	202**	S20200

\* for all elements except phosphorus and sulphur (P and S) having  $P \leq 0.06\%$  and  $S \leq 0.03\%$

\*\* different grade upon request

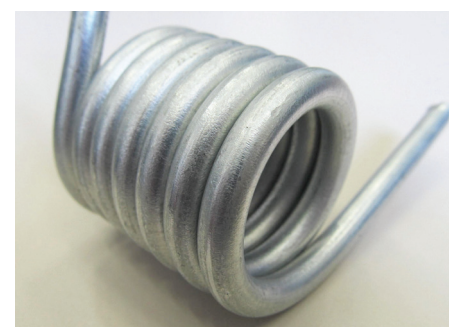
## Mechanical properties for a round Bezinox® wire ( AISI 202 )

Nominal diameter	Diameter tolerances	Tensile strength range	Yield strength range	Minimum elongation at break on gauge length $L_0 = 100$ mm	Torsion test minimum number of turns
2,50 - 3,15 mm	$\pm 0,06$ mm	650 - 900 N/mm <sup>2</sup>	min 400 N/mm <sup>2</sup>	25 %	12
3,16 - 4,00 mm	$\pm 0,08$ mm				10
4,01 - 5,00 mm	$\pm 0,08$ mm				8
5,01 - 6,00 mm	$\pm 0,09$ mm				7
6,01 mm -	$\pm 0,10$ mm				-

## Coating weight for a round Bezinox® wire

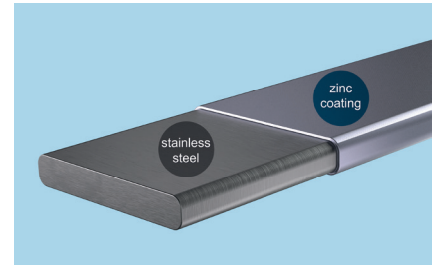
Nominal diameter	Coating
$2.50 \leq d < 2.80$ mm	245 g/m <sup>2</sup>
$2.80 \leq d < 3.20$ mm	255 g/m <sup>2</sup>
$3.20 \leq d < 3.80$ mm	265 g/m <sup>2</sup>
$3.80 \leq d < 4.40$ mm	275 g/m <sup>2</sup>
$4.40 \leq d < 5.20$ mm	280 g/m <sup>2</sup>
$5.20 \leq d < 8.20$ mm	290 g/m <sup>2</sup>

**Wrapping test:**  
6mm Bezinox® wire wrapped on a 18mm mandrel



## Optimise your cable design to your project needs

We are also producing flat non-magnetic armouring wire with different grades to help you expand your designs options. Thanks to our Bezinox® wires you can overcome some of the challenges as the “last cable mile” overheating, or cable failures caused by corrosion.



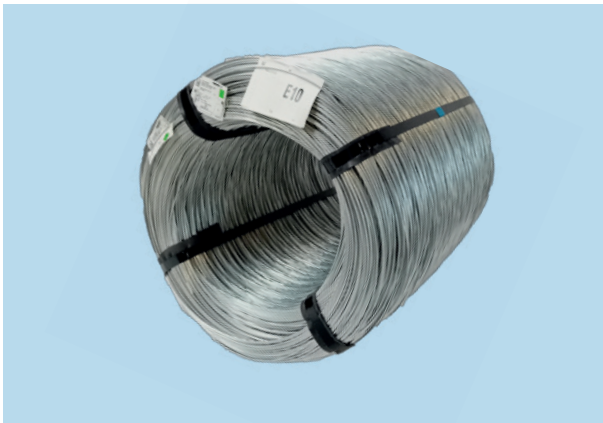
### Mechanical properties for a flat Bezinox® wire

Nominal dimensions	Dimension tolerances	Tensile strength range
6,00 x 2,00 - 14,00 x 3,50 mm	±0,12 x ± 0,08 mm	550 - 850* N/mm <sup>2</sup>

\* dependance on grade

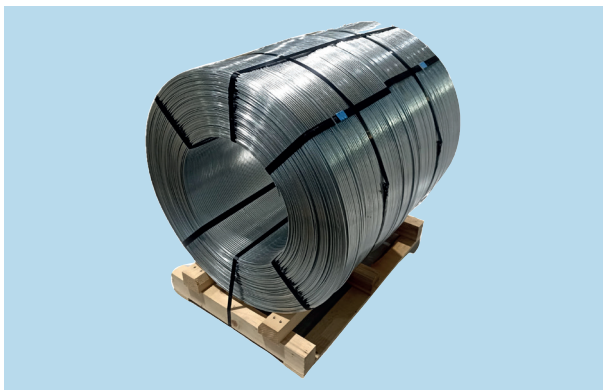
### Available packaging

The wire is usually winded on orbits or spools but customized packing dimensions are available upon request.



#### Orbit dimensions for round wire

ID	370 mm	580 mm
OD	800 mm	1 100 mm ( max )
H	850 mm	1 100 mm
Weight	700 kg	2 000 kg ( max )



#### Spool dimensions for flat wire

ID	500 mm
OD	1 000 mm (max.)
H	500 mm
Weight	1 500 - 1 700 kg ( max )

[bekaert.com/bezinox](https://bekaert.com/bezinox) →

NV BEKAERT SA - Bekaert straat 2 - 8550 Zwevegem - Belgium - T +32 56 76 65 08 - [cable.solutions@bekaert.com](mailto:cable.solutions@bekaert.com)

Modifications reserved. All details describe our products in general form only. For ordering and design only use official specifications and documents. Unless otherwise indicated, all trademarks mentioned in this brochure are registered trademarks of NV Bekaert SA or its subsidiaries. © Bekaert 2023 - Responsible editor: NV Bekaert SA - 09 2023