

Advantages of the product compared to steel

 noise reducing

 100%



LIGHTER
4 x lighter than steel



STRONGER
2 x stronger than steel



RUST-RESISTANT
Extends service life



CHEMICALLY RESISTANT



ELECTRICAL INSULATOR



NON-MAGNETIC



CERTIFIED



THERMAL INSULATOR
No thermal bridges



25 % CARBON FOOTPRINT
vs. steel

FiberoX® radically reduces thermal bridges and thus heating and cooling costs.
 FiberoX® creates healthy living without electromagnetic cages and accumulated radiation.
 FiberoX® is eco-friendly, with a half carbon footprint compared to concrete steel.
 FiberoX® retains up to 65% of its cue strength in case of fire and temperatures over 330°C.
 FiberoX® (also in concrete) is fully recyclable and fully compatible with cement production (contains Calcium Oxide).
 FiberoX® reinforcements minimizes noise, unlike opposite steel carrying and multiplying noise in concrete constructions.
 Iron reinforcement can be replaced when changing the profile by a degree lower FiberoX reinforcement. (Consider Young's flexibility model)

Applications examples

Residential buildings	Transport construction	Underground construction	Prefa	Thermal & Sound break	Structures with high voltage and electromagnetic fields
Family houses	Bridges	Underground walls	Sandwich constructions	Sandwich constructions	Military Facilities
Arrival roads	Prestress	Tunnels	Cesspools and water meter	Thermal break	MRI Room
Parking lots	Aggressive environment	Cesspools and water meter shafts	Concrete fences and blocks Resistance	Balconies	X-ray Rooms
Retaining walls and fences	Road constructions	Water dams	Design products	Columns (Transitions between ceiling and column)	High-voltage constructions
Pools	Parking lots	"White Bathtubs"	Strip foundations		EV charging station
Cellars		Chemical warehousing	Railway		Photovoltaic constructions

Certifications

- CE (EU Declaration of performance)
- SK04-ZSV-3259 (TSUS Bratislava)
- 204/CS/2022/060-055000 (TZUZ Prague)
- 060-054867 (Building Technical Certificate TZUZ)

Testing standards

- ISO 10406-1 - 6/5/6.4.4/7/10 -13
- CSN EN ISO 6259-1 -11
- CSN EN ISO 1172 + 13706-2
- Met. 100611-01

US Standards:

AXIS S807
 ASTM D7957
 ACI 332 & ACI 440
 ICC-ES AC454
 TMS 402/602

EURO standards:

- CEN/TS 19101: Design of Fibre-Polymer Composite Structures
- EUROCODE 2 - FprEN 1992-1-1:2023 Annex R
- CEN/TC250 WG4 EuCIA

Essential product features

Trait tracked	4 mm	6 mm	8 mm	10 mm	12 mm	14 mm	16 mm
Tensile strength Proportional	min. 1195 MPa			min. 1004 MPa			
Nominal diameter *) Overload force	min. 9,1 kN	min. 20,5 kN	min. 36,3 kN	min. 56,7 kN	min. 81,7 kN	min. 111,1 kN	min. 145,1 kN
Modulus of elasticity / Tensile stiffness	min. 37 GPa - max. 45 GPa			min. 39 GPa - max. 51,1 GPa			
	min. 500 kN	min. 800 kN	min. 1700 kN	min. 3000 kN	min. 4500 kN	min. 5000 kN	min. 8000 kN
Consistency with concrete	min. 16 N/mm ² (min 66 MPa)			min. 9 N/mm ² (min 60 MPa)			
Tensile fatigue strength - 1st level for 10 ³ cycles	min. 10 ³ cycles in the range of 2-8 kN	min. 10 ³ cycles in the range of 2-12 kN	min. 10 ³ cycles in the range of 4,5-28 kN	min. 10 ³ cycles in the range of 5,5-45 kN	min. 10 ³ cycles in the range of 7-60 kN	min. 10 ³ cycles in the range of 7-76 kN	min. 10 ³ cycles in the range of 10-100 kN
Shear strength	min. 220 N/mm ²			min. 150 N/mm ²			
Resistance to alkaline environment	> 80 %						
Fibre content by weight	min. 72 %						

* Details of individual exams only on request

Packaging and storage

Diameter of the rod	Packages	Weight m
4 mm	m / 50 m winding	0,027 kg
6 mm	m / 50 m winding	0,04 kg
8 mm	m / 50 m winding	0,08 kg
10 mm	m / 50 m winding	0,133 kg
12 mm	m	0,197 kg
14 mm	m	0,284 kg
16 mm	m	0,342 kg
18-22 mm	m	-

Size of Kari nets	Dimension	Weight of one piece (6 m ²)
Kari 4	3x2 m (15x15 cm)	2,6 kg
Kari 6	3x2 m (15x15 cm)	3,7 kg
Kari 8	3x2 m (15x15 cm)	7,7 kg
Kari 10	3x2 m (15x15 cm)	11 kg
Kari 12	3x2 m (15x15 cm)	16 kg
Kari 14 - 22	3x2 m (15x15 cm)	-

* Daily production capacity is from 3000 m to 9600 m (depending on diameter)

* Rod lengths are prepared per cm on request, as well as KARI nets when changing the size of the mesh

* Personification of color pigments is on request

* FiberoX ® is weather resistant, fading or chalkiness of the surface caused by uv does not affect the properties of the product.

Handling and implementation of concrete constructions and structures

- Handling and working with FiberoX® composites is basically the same as with conventional concrete steel, but with few exceptions.
- FiberoX® is 4x lighter than steel, both rods and 50m reels are very practical and easy to carry and to manipulate, saving "human back, energy and time".
- FiberoX® winding can be supplied in 50m profiles from 4 to 10mm included, this saves unnecessary losses and eliminates "over-connections" (anchor length), thus working without any waste.
- FiberoX® rods can be cut to centimetre accuracy free of charge in the factory.
- When unrolling a coil of FiberoX composite roxor, extra care must be taken due to its high elasticity so that it does not uncoil spontaneously, which could endanger your health.
- After unfolding or rewinding and unfolding, the composite immediately expands.
- If you have extra time and do not buy ready-made curly nets, its joining is the same as with steel (by tying wires manually or using electric tie fittings).
- FiberoX® reinforcement cutting is carried out in the same way as steel (with a power sander).
- FiberoX®, unlike steel, cannot be bent and therefore the bend is possible and given only the limit of flexibility.
- FiberoX® composite stirrups and other profiles are in the production plan, currently steel stirrups and FiberoX direct composite reinforcement are combined in the constructions.



- FiberoX® Agro Line is an innovative product designed for farmers and home growers.
- Thanks to its lightness and durability, it is very popular among domestic gardeners, vine growers or aquaponic cultivation.
- FiberoX® Agro line has low thermal conductivity (e.g. it does not burn vine leaves), does not corrode, is lightweight and unlike FiberoX® original - whose high cohesion with concrete is also guaranteed by the sharp coil fibre - in the case of Agro Line, its sharpness is eliminated and the **surface is smooth and practical for agricultural purposes** (it does not damage plants).



Consulting and design support

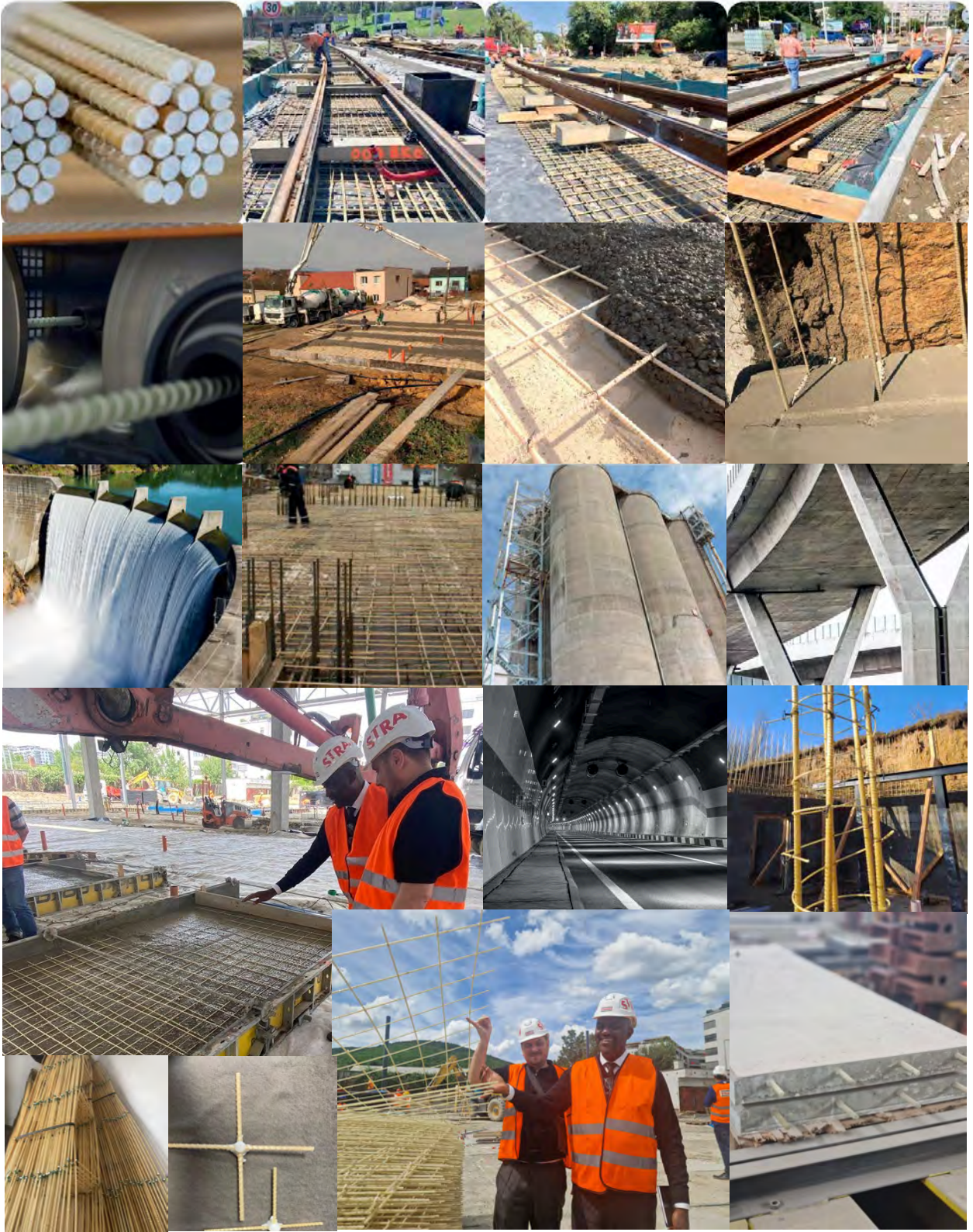
- For free consultations, advice from a static, references, certificates or realized projects, please contact us

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more info



VÝSTUŽE

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www.fiberox.eu

Product data sheet | FiberoX roxy & KARI mesh | 1052024 EN

** Beware of low-quality imitations!*