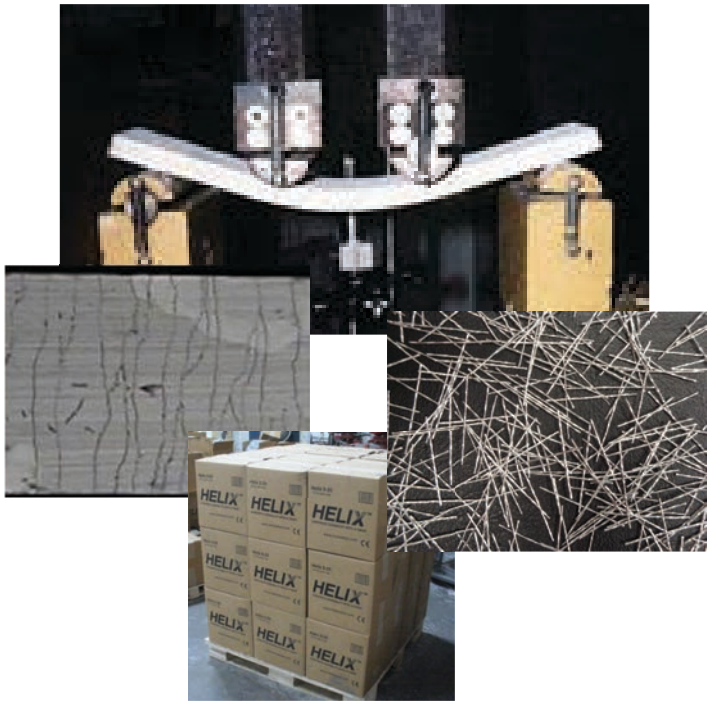
HELIX™

Micro-Rebar

Helix Micro-Rebar:

The ONLY Proactive Reinforcement



Helix Micro-Rebar vs. Other Reinforcements

	CONVENTIONAL		FIBERS				
Properties Desired in Reinforced Concrete	**Mesh**	**Rebar**	**Micro Synthetic**	**Macro Synthetic**	**1" Steel Type I/II**	**2" Steel Type I/II**	***HELIX 5-25***
Anchorage	Good	Good	Poor	Poor	Good	Good	***Excellent***
Bond	Good	Good	Good	Good	Good	Good	***Excellent***
Cost to Install	Poor	Poor	Excellent	Good	Good	Good	***Excellent***
Ductility	Poor	Poor	Poor	Good	Good	Good	***Excellent***
Finish of Concrete	Excellent	Excellent	Excellent	Good	Excellent	Poor	***Excellent***
Impact Resistance	Poor	Poor	Poor	Good	Excellent	Good	***Excellent***
Number of Pieces	Poor	Poor	Excellent	Good	Excellent	Good	***Excellent***
Resistance to Pull Out	Poor	Good	Poor	Poor	Good	Good	***Excellent***
Shear Resistance	Poor	Good	Poor	Good	Excellent	Good	***Excellent***
Spalling Resistance	Poor	Poor	Excellent	Good	Excellent	Good	***Excellent***
Structural Concrete Use	Poor	Excellent	Poor	Poor	Good	Good	***Excellent***
Temperature Control	Good	Good	Poor	Poor	Excellent	Excellent	***Excellent***
Time to Install	Poor	Poor	Excellent	Good	Good	Good	***Excellent***
Yield in Tensile	Poor	Good	Poor	Poor	Good	Good	***Excellent***

Anchorage - Helix anchors better to the concrete due to its unique lateral twists ***Cost to Install*** - Helix is added and deliverd in the ready mix trucks at up to 3x less dosage as other steel fibers ***Ductility*** - Helix is the only Proactive reinforcement in the world, lowering Modulus of Elasticity and increasing Flexiblity of concrete ***Finish*** - Helix finishes excellent and under the paste line for no fibers exposed due it size, weight and unique shape ***Impact Resistance*** - Helix is spread thoughout every square inch of concrete, the impact resistance is excellent ***Number of Pieces*** - Helix has 11,500 pcs in every cubic yard of concrete - compared to only 2 to 4 for conventinal ***Resistance to Pull Out*** - Helix gives a consistent resistance to pull out since it must untwist to come out of the concrete - 3x more than other steel fibers ***Shear Resistance*** - Since Helix is in the concrete section in all directions, shear resistance is provided at no additional cost ***Spalling Resistance*** - Helix is spread thorughtout every square inch of the concrete, protecting 100% of the concrete from spalling ***Structural Concrete Use*** - Helix can be used under ACI 318 sec 1.4 since it has been proven by calculation and full scale testing to be safe ***Temperature Control*** - Helix is made of carbon steel which has been proven to control the temperature changes in concrete ***Time to Install*** - Helix eliminates conventional reinforcement labor and up to 3x less dosage than steel fibers ***Yield in Tensile*** - Helix provides a 6% yield in material properties and another 6% in untwisting.

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