

Litz Wire - Served

**Served Litz Wire****General**

High frequency litz wire served with natural silk, polyester, or nylon is characterized by increased dimensional stability and mechanical protection. The optimized serving tension ensures high flexibility and splicing- or spring up prevention during the process of cutting the litz wire. This splicing effect can cause handing and contacting of the wire ends more difficult in post processing.

Features and benefits of served litz wires

- Additional protection against mechanical stress
- Excellent dimensional and physical stability
- High flexibility
- Splicing prevention
- Good solderability above temperatures of 410 °C
- Improved impregnation
- Optimization of winding capacity
- Serving material allows optimization of insulation distances

Technical properties of served litz wires**Technical values of serving material**

Serving materials ¹⁾	Silk	Nylon	Polyester*	
Thermal properties				

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Recommended permanent use temperature	110	120	120	°C
Melting temperature	-	250 - 260	250 - 260	°C
Electrical properties				
Dielectric constant ϵ_r	1.4	3.4	3.2	
Mechanical properties				
Elongation at break (dry)	13 - 25	25 - 46	20	%
Moisture absorption (65% rel. humidity, 21°C)	9	2.5 - 4	0.2 - 0.5	%
Other				
Color	white, green	white	white	

Dimensions

Serving materials ¹⁾	Silk	Nylon	Polyester*	
Diameter of single wires ²⁾	0.020 - 0.300	0.020 - 0.300	0.020 - 0.300	mm
Number of single wires ³⁾	2 - 25,000	2 - 25,000	2 - 25,000	pcs
outer diameter of litz wires	0.071 - 4.0	0.071 - 10.0	0.071 - 4.0	mm
Number of layers (typ.)	1 - 2	1 - 2	1 - 2	

* Available in Asia only

¹⁾ customized solution on demand (thermo adhesive yarns)

²⁾ other diameters on demand

³⁾ depending on number of single wires

Applications

- HF transformers
- HF in-/converters
- HF transceivers
- HF chokes
- Inductive charger