

## RUPALIT® Planar

### Product datasheet

#### RUPALIT® as parallel-arranged high-frequency litz wire

This elegant geometry minimizes leakage inductances and enables field-compensated windings for high-power applications.



Ideal for transformers with high output current and induction heating applications up to the kW range.

#### Advantages

- Minimized leakage inductance
- Field-compensated winding
- High copper fill factor
- Drastic reduction of leakage inductance – the parallel arrangement enables field-compensated windings that minimize stray radiation and parasitic effects
- High current-carrying capacity with minimal outside diameter – ideal for high-current applications up to the kW range
- Reduced manufacturing complexity in multi-strand transformers – planar winding is simpler and more reproducible than multilayer windings

#### Technical data

##### Construction

- Several RUPALIT® wires arranged in parallel
- Total copper cross-section: up to 150 mm<sup>2</sup>
- With or without additional insulating jacket, depending on application

##### Insulation material

###### Yarn

- Natural silk (52) – natural yarn for applications requiring maximum flexibility and high quality
- Polyamide (63, PA6.6, Nylon®) – robust textile yarn with high mechanical resistance
- Other materials on request: glass silk, rayon, acetate silk

###### Foil

- PET (polyethylene terephthalate, polyester, Mylar®) – foil as a classic insulation material with excellent dielectric strength
- PEN (polyethylene naphthalate, Teonex®) – foil for high-temperature applications
- PI (polyimide, Kapton®) – foil for extreme thermal requirements



- Aramid (Nomex®) – foil for very high temperature resistance
- Other materials on request

#### Applications

- Aerospace – flat HF transformers

Construction	Dimensions (W x H)	Copper cross-section
35 // 10 x 0.04 mm, 1 x 63	5.70 x 0.50 mm +/- 0.20 mm	0.45 mm <sup>2</sup>
24 // 27 x 0.071 mm, 2 x 63	20.50 x 0.80 mm +/- 0.20 mm	2.50 mm <sup>2</sup>
4 // 120 x 0.10 mm, 2 x 63	8.20 x 1.50 mm +/- 0.20 mm	3.77 mm <sup>2</sup>
6 // 210 x 0.10 mm, 2 x 63	10.00 x 2.50 mm +/- 0.20 mm	9.90 mm <sup>2</sup>
6 // 70 x 0.20 mm, 2 x 63	14.70 x 2.50 mm +/- 0.20 mm	13.20 mm <sup>2</sup>
18 // 405 x 0.071 mm, o.U.	33.00 x 2.50 mm +/- 0.20 mm	28.86 mm <sup>2</sup>
8 // 350 x 0.20 mm, 2 x 63	41.00 x 5.00 mm +/- 0.20 mm	88.00 mm <sup>2</sup>

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