



PRODUCT INFORMATION



ERTHERM-SOL

round enamelled copper wire , winding wire , magnet wire, class 180

Properties:

- Directly solderable
- Suitable in high speed winding machines

Field of application:

- Equipment construction
- Motor applications

Product name:

ERTHERM-SOL - Gr 1 / Single
ERTHERM-SOL - Gr 2 / Heavy

Specifications:

IEC 60317-23
MW77-C

UL approval :

Not Approved

Certifications:

IATF 16949
ISO 9001, ISO 14001, OHSAS 18001
RoHS, REACH

Dimension range: IEC

ERTHERM-SOL Gr 1 $0,05 \leq \varnothing \leq 2,00 \text{ mm}$
ERTHERM-SOL Gr 2 $0,05 \leq \varnothing \leq 2,00 \text{ mm}$

Class: 180

Temperature index $\geq 180 \text{ }^{\circ}\text{C}$
Heat shock: $\geq 200 \text{ }^{\circ}\text{C}$

Dimension range: NEMA

ERTHERM-SOL Single $44 \leq \varnothing \leq 12 \text{ AWG}$
ERTHERM-SOL Heavy $44 \leq \varnothing \leq 12 \text{ AWG}$

Conductor material:

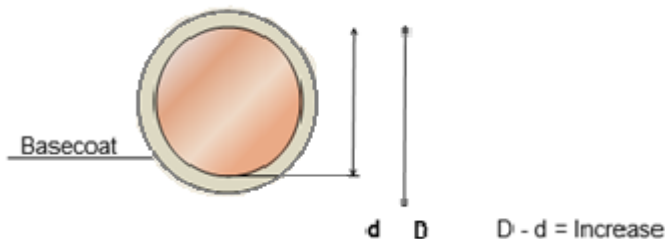
Cu according to EN 1977/ASTM B49

Insulation:

Basecoat: Modified Polyesterimide

Shelf life:

6 years, under normal ambient conditions





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Properties for ERTHERM-SOL

Main characteristics	Test method	Acceptance criteria	Test values for a ERTHERM-SOL sample (1,00 mm, Gr2)
Thermal properties			
Heat shock	IEC 60851 - 6.3	$\geq 200\text{ }^{\circ}\text{C}$	$\geq 200\text{ }^{\circ}\text{C}$
Cut-through	IEC 60851 - 6.4	$\geq 265^{\circ}\text{C}$	$> 275\text{ }^{\circ}\text{C}$
Temperature index	IEC 60172	$\geq 180\text{ }^{\circ}\text{C}^{1)}$	$\geq 180\text{ }^{\circ}\text{C}^{1)}$
Chemical properties			
Solderability	IEC 60851-4.5	$470\text{ }^{\circ}\text{C}$	Max.8 sec
Resistance to Transformer oil	IEC 60851-4.6	Not applicable	-
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	$0,01709\text{ }\Omega\text{mm}^2/\text{m}$	$0,01709\text{ }\Omega\text{mm}^2/\text{m}$
Conductivity	1/R	$> 58\text{ m}/(\Omega\text{mm}^2)$	$> 58\text{ m}/(\Omega\text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4	IEC 60317-0-1 ²⁾	8,0 kV
Mechanical properties			
Elongation	IEC 60851-3.3	IEC 60317-0-1 ²⁾	36%
Springiness	IEC 60851-3.4 Springiness ³⁾	IEC 60317-0-1 ²⁾	40°
	Springback ⁴⁾	$\leq 5^{\circ}$	-
Flexibility	IEC 60851-3.5 Mandrel wind. ³⁾	1xØ	1xØ
	Stretching ⁴⁾	min 32%	-
	IEC 60851-3.5 Jerktest ⁵⁾	No loss of adhesion	OK
	Peeltest ⁶⁾	min. 75 ⁷⁾	-

1. According to supplier certificate

2. Values depend on dimension and grade

3. Up to an including 1,60 mm

4. Over 1,60 mm

5. Up to an including 1,00 mm

6. Over 1,00 mm

7. Revolutions x nominal dimension

Values above are for information only.
All values noted are typical and can vary between lots and dimensions.



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The technical data included is up to date at the time of printing.
Erikoğlu reserve the right to make any amendments deemed necessary