



PRODUCT INFORMATION



ERSOL 180

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

Properties:

- Directly solderable
- Very short soldertime
- Suitable in high speed winding machines
- Excellent mechanical resistance

Product name:

ERSOL 180 - Gr 1 / Single
ERSOL 180 - Gr 2 / Heavy

Field of application:

- Solenoid coils
- Small motors and transformers
- Relays
- Automotive components
- Electronic devives&meters

Specifications:

IEC 60317-51
MW82-C

UL approval :

Approved : ERSOL 180
UL-file no : E304215

Certifications:

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

Dimension range:

IEC

ERSOL 180 Gr 1 $0,05 \leq \varnothing \leq 2,00$ mm
ERSOL 180 Gr 2 $0,05 \leq \varnothing \leq 2,00$ mm

Class: 180

Temperature index ≥ 180 °C
Heat shock: ≥ 200 °C

Dimension range:

NEMA

ERSOL 180 Single $44 \leq \varnothing \leq 12$ AWG
ERSOL 180 Heavy $44 \leq \varnothing \leq 12$ AWG

Conductor material:

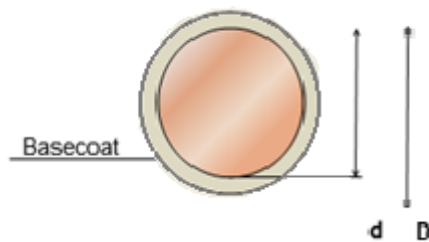
Cu according to EN 1977/ASTM B49

Insulation:

Basecoat: Polyurethane

Shelf life:

6 years, under normal ambient conditions



$D - d = \text{Increase}$



ERSOL 180

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

Properties for ERSOL 180

Main characteristics	Test method	Acceptance criteria	Test values for a ERSOL 180 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	$\geq 230^{\circ}\text{C}$	$> 240\text{ }^{\circ}\text{C}$
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	390 $^{\circ}\text{C}$	Max.3 sec
Resistance to Transformer oil	IEC 60851-4.6	Not applicable	-
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	0,01709 $\Omega\text{mm}^2/\text{m}$	0,01709 $\Omega\text{mm}^2/\text{m}$
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⁾	6,0 kV
Mechanical properties			
Elongation	IEC 60851-3.3	IEC 60317-0-1 ⁽²⁾	36%
Springiness	IEC 60851-3.4	Springiness ⁽³⁾	40°
		Springback ⁽⁴⁾	$\leq 5^{\circ}$
Flexibility	IEC 60851-3.5	Mandrel wind. ⁽³⁾	1xØ
		Stretching ⁽⁴⁾	min 32%
	IEC 60851-3.5	Jerktest ⁽⁵⁾	No loss of adhesion
		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.



Denizli / TÜRKİYE

T: +90 258 2671507

F: +90 258 2671506

www.erikogluemaye.com.tr