



PRODUCT INFORMATION



ERSOL 180 N

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

Properties:

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

Field of application:

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

Certifications:

IATF 16949

ISO 9001, ISO 14001, OHSAS 18001

RoHS, REACH

Class: 180

Temperature index $\geq 180^{\circ}\text{C}$

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

Conductor material:

Cu according to EN 1977/ASTM B49

Insulation:

Basecoat: Polyurethane

Product name:

ERSOL 180 N - Gr 1 / Single

ERSOL 180 N - Gr 2 / Heavy

Specifications:

IEC 60317-55

MW83-C

UL approval :

Not Approved

Dimension range:

IEC

ERSOL 180 N Gr 1 $0,05 \leq \varnothing \leq 2,00 \text{ mm}$

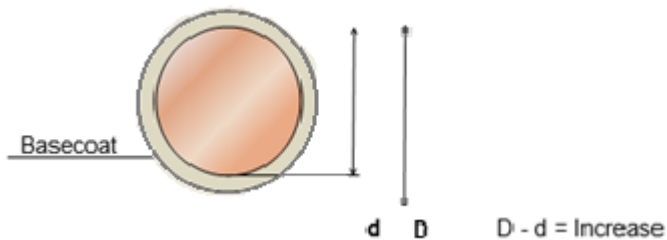
ERSOL 180 N Gr 2 $0,05 \leq \varnothing \leq 2,00 \text{ mm}$

Dimension range:

NEMA

ERSOL 180 N Single $44 \leq \varnothing \leq 12 \text{ AWG}$

ERSOL 180 N Heavy $44 \leq \varnothing \leq 12 \text{ AWG}$





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Properties for ERSOL 180 N

Main characteristics	Test method	Acceptance criteria	Test values for a ERSOL 180 N 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⁾	-
Flexibility	IEC 60851-3.5	Mandrel wind. ³⁾	1xØ
		Stretching ⁴⁾	-
	IEC 60851-3.5	Jerktest ⁵⁾	OK
		Peeltest ⁶⁾	-

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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