



PRODUCT INFORMATION



ERALLOY-TIN 180

Round enameled winding wire of CuSn03 Alloy
Solderable, Class 180

Properties:

- Directly Solderable
- Good Bending Performance
- Tin 0.15-0.55 %wt
- High Tensile Strength

Field of application:

- Equipment Construction
- Automotive and Aerospace Industry
- Resistors Applications
- Heating Applications

UL approval :

Not Approved

Certifications:

IATF 16949

ISO 9001,ISO 14001,OHSAS 18001

RoHS,REACH

Class: 180

Temperature index ≥ 180 °C

Heat shock: ≥ 180 °C

Conductor material:

CuSn03 according to C18835

Insulation:

Basecoat: Polyurethane

Product name:

ERALLOY-TIN - Gr 1 / Single

ERALLOY-TIN - Gr 2 / Heavy

Specifications:

IEC 60317-51

MW82-C

Dimension range:

IEC

ERALLOY-TIN Gr 1 $0,05 \leq \varnothing \leq 0,12$ mm

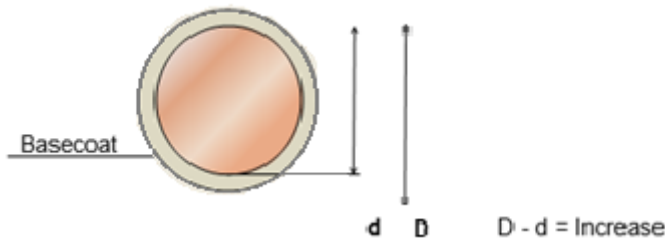
ERALLOY-TIN Gr 2 $0,05 \leq \varnothing \leq 0,12$ mm

Dimension range:

NEMA

ERALLOY-TIN Single $44 \leq \varnothing \leq 36$ AWG

ERALLOY-TIN Heavy $44 \leq \varnothing \leq 36$ AWG





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Properties for ERALLOY-TIN

Main characteristics	Test method	Acceptance criteria	Test values for a ERALLOY-TIN sample (0,085 mm, Gr2)
Thermal properties			
Heat shock	IEC 60851 - 6.3	≥ 200 °C	≥ 200 °C
Cut-through	IEC 60851 - 6.4	≥ 230 °C	> 230 °C
Temperature index	IEC 60172	≥ 180 °C ¹⁾	≥ 180 °C ¹⁾
Chemical properties			
Solderability	IEC 60851-4.5	390 °C	Max.1 sec
Chemical Composition	C18835	%0.15 - %0.55wt Sn	%0.26wt Sn
Electrical properties			
Conductor resistance	C18835	0,021 Ω mm ² /m	0,021 Ω mm ² /m
Conductivity	1/R	47 m/(Ω mm ²)	47 m/(Ω mm ²)
Breakdown voltage	IEC 60851 - 5.4	IEC 60317-0-1 ²⁾	>875 V
Mechanical properties			
Elongation	IEC 60851-3.3	IEC 60317-0-1 ²⁾	5%-15%
Tensile Strenght	IEC 60851-3.3	IEC 60317-0-1 ²⁾	>350 N/mm ²
Yield Strenght	IEC 60851-3.3	IEC 60317-0-1 ²⁾	>120 N/mm ²

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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