



PRODUCT INFORMATION



ERACETAL 120

round enamelled copper wire , winding wire , magnet wire, class 120

Properties:

- High chemical resistance
- Oil proof

Product name:

ERACETAL 120 - Gr 1 / Single
ERACETAL 120 - Gr 2 / Heavy

Field of application:

- Oil filled transformers
- General motors

Specifications:

IEC 60317-12
MW15-C

UL approval:

Not Approved

Dimension range:

IEC

ERACETAL 120 Gr 1 $0,70 \leq \varnothing \leq 2,00$ mm
ERACETAL 120 Gr 2 $0,70 \leq \varnothing \leq 2,00$ mm

Certifications:

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

Dimension range:

NEMA

ERACETAL 120 Single $21 \leq \varnothing \leq 12$ AWG
ERACETAL 120 Heavy $21 \leq \varnothing \leq 12$ AWG

Class: 120

Temperature index ≥ 120 °C
Heat shock: ≥ 155 °C

Conductor material:

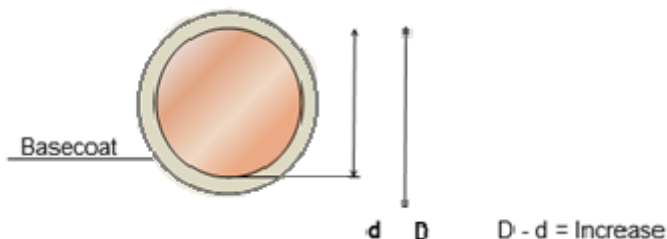
Cu according to EN 1977/ASTM B49

Shelf life:

6 years, under normal ambient conditions

Insulation:

Basecoat: Polyvinyl Acetal –Polyvinyl Formal





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Properties for ERACETAL 120

Main characteristics	Test method	Acceptance criteria	Test values for a ERACETAL 120 sample (1,00 mm, Gr2)
Thermal properties			
Heat shock	IEC 60851 - 6.3	$\geq 155\text{ }^{\circ}\text{C}$	$\geq 155\text{ }^{\circ}\text{C}$
Cut-through	IEC 60851 - 6.4	$\geq 170\text{ }^{\circ}\text{C}$	$> 180\text{ }^{\circ}\text{C}$
Temperature index	IEC 60172	$\geq 120\text{ }^{\circ}\text{C}^{(1)}$	$\geq 120\text{ }^{\circ}\text{C}^{(1)}$
Chemical properties			
Solderability	IEC 60851-4.5	Not solderable	-
Resistance to Transformer oil	IEC 60851-4.6	IEC 60317-0-1	OK
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⁾	9,0 kV
Mechanical properties			
Elongation	IEC 60851-3.3	IEC 60317-0-1 ⁽²⁾	37%
Springiness	IEC 60851-3.4 Springiness ⁽³⁾	IEC 60317-0-1 ⁽²⁾	38°
	Springback ⁽⁴⁾	$\leq 5^{\circ}$	-
Flexibility	IEC 60851-3.5 Mandrel wind. ⁽³⁾	0% elongation + 1xØ	1xØ
	Stretching ⁽⁴⁾	min 32%	-
Adherence	IEC 60851-3.5 Jerktest ⁽⁵⁾	No loss of adhesion	OK
	Peeltest ⁽⁶⁾	min. 110 ⁽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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