

# Product

## Round copper C200 (PLUS)



### Features

**Section:** Round

**Material:** Copper

**Thermal class:** 200 — (220)

**Enamel polymer:** PEI+Al

**Grades:** 1-2-3

**Diameters:** 0,12-5,5 mm

It is an enamelled wire with high mechanical, thermal and chemical properties. Structurally, the wire consists of a POLYESTER or POLYESTER-IMIDE base varnish and a POLYAMIDE-IMIDE top layer. Each layer of varnish gives the final wire excellent properties for the industry.

Mechanically, its stand-out features are its excellent resistance to abrasion, flexibility (meaning it is capable of withstanding demanding deformations, stretching and crushing in final processes), and low friction coefficient, which allows the wire to be worked on at high winding speed without damaging the insulating layer. Thermally, the wire is capable of withstanding high working temperatures and occasional overloads. Chemically, the wire is compatible with most commercial impregnation resins and oils, coolants and cleaning fluids.

Despite being a complete wire, there may be applications that require a specific improvement, which is why we have a qualified technical team to study specific cases and prepare a project tailored to any need.



### Application

For generators, electric motors, compressors, transformers, motor pumps, control equipment, e-mobility.



### Standard

IEC / DIN EN 60317-13  
NEMA MW35-C (MW37-C)  
UL E93551



### Range & grade

Grades: 1-2-3  
Diameters: 0,12-5,5 mm

# Technical Specifications

## Mechanical Properties

Parameter	Unit	Point IEC	Test conditions	IEC value	Actual value (Ø1,20mm)
Conductor diameter	mm	4.1	-	1,187 - 1,213	or within the range defined by customer
Overall diameter	mm	4.3	-	1,267 - 1,299	or within the range defined by customer
Elongation	%	6	-	33	40
Springiness	grades	7.1	-	37	34
Flexibility and adherence	-	8	-	1xØ	10% 1xØ
Resistance to abrasion	N	11	-	13	-
Sliding force	gr	-	-	-	1900gr
Peel test	turns	8	-	92	125

## Electrical Properties

Parameter	Unit	Point IEC	Test conditions	IEC value	Actual value (Ø1,20mm)
Breakdown voltage	V	13.2	-	5000	14500
Electrical Conductivity	MS/m	5	-	≥58	-
Continuity of insulation	Faults	14	30m 1500V 8µA	5	<7 en 100m

The information in this data sheet is based on information provided by our supplier. It does not represent any specification or agreement with respect to conditions or properties. The values indicated are standard values. Deviations from these values due to production and application cannot be excluded. The information in this data sheet is intended for use by experts at their own discretion and risk. We do not guarantee results, nor do we accept responsibility for the specifications stated or the results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed in the safety data sheet. Last updated: 14/1/20

## Thermal Properties

Parameter	Unit	Point IEC	Test conditions	IEC value	Actual value (Ø1,20mm)
Temperature index	°C	15	-	200	-
Dielectric dissipation factor (tg δ)	°C	-	-	-	198
Cut-through	°C	10	320°C 1 min. heating + 2 with 18,00 N	OK	OK
Heat shock	-	9	220° 30min	Ø 4.000	Ø 1.20

## Chemical Properties

Parameter	Unit	Point IEC	Test conditions	IEC value	Actual value (Ø1,20mm)
Solderability	°C	17	-	Not applicable	Not applicable
Resistance to transformer oil	-	20	-	-	Yes
Resistance to refrigerants	-	16	-	-	Yes
Resistance to solvents	-	-	-	>H	4H
Heat bonding	-	-	-	-	-

[1] Due to the variety of individual applications, we cannot make any generally binding commitments regarding compatibility. We recommend testing compatibility with the materials used.



### For further information: **SEEER**

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