

# MAGNETEMP® C-180 MAGNETEMP® CN-180

## Properties

**Magnetemp® C-180** has the following characteristics:

- temperature index of 192°C,
- insulation at high temperatures,
- high cut-through and high resistance to heat sock and thermal overloads.

## Insulation

**Magnetemp® C-180** is a polyesterimide (THEIC) enameled copper wire.

## Application

**Magnetemp® C-180** is designed for the production of the following applications:

- winding on automatic winding machines,
- coils impregnated or encapsulated with solvent free resins

Main applications are found in relays, transformers, components for television as automotive, but also in micro-motors, and every winding used for class F and H equipment.

## Production range

The standards are

Diameter: 0.05 to 5 mm

Thickness: Grade 1 and Grade 2

Color: Natural

This wire is also available with a polyamide overcoat under the following trademark:

**Magnetemp® C-180**

(NEMA MW76/IEC 60317-22)

The polyamide overcoat gives to **Magnetemp® C-180** high level of windability and excellent resistance to many chemicals, especially most impregnation and encapsulating resins.

## Characteristics

**Magnetemp® C-180** fulfills the requirements of the following specifications:

IEC 60317-8

NEMA MW 30

**Magnetemp® C-180** and **Magnetemp® CN-180** have an official approval by UL, class 180.

## MAGNETEMP® C-180

Valeurs typiques d'un fil <b>Magnetemp® C-180</b> mesurées selon les normes CEI 60 851	Typical values for a <b>Magnetemp® C-180</b> sample according to IEC 60 851 standards	
Diamètre du conducteur Diamètre sur émail Isolation de base	0,400 0,446 Polyesterimide (THEIC)	Conductor Diameter Overall Diameter Basecoat
<b>Principales caractéristiques</b>		<b>Main characteristics</b>
Indice de température	<b>192°C</b>	Thermal index
Durée de vie de 5000 h à	<b>212°C</b>	5000 h life test
Choc thermique	<b>OK at 220°C</b>	Heat shock
Thermoplasticité	<b>≥ 320°C</b>	Cut through temperature
Tension de claquage	<b>≥ 1,5 IEC values</b>	Breakdown voltage
Flexibilité	<b>15 % + 1 diam.</b>	Flexibility
Allongement	<b>37 %</b>	Elongation
Tangente Delta	<b>≥ 180°C</b>	Tangent Delta
Resistance aux agents chimiques	<b>Good</b>	Chemical resistance

## MAGNETEMP<sup>®</sup> C-180 MAGNETEMP<sup>®</sup> CN-180

Valeurs typiques d'un fil <b>Magnetemp<sup>®</sup> C-180</b> mesurées selon les normes CEI 60 851		Typical values for a <b>Magnetemp<sup>®</sup> C-180</b> sample according to IEC 60 851 standards
Diamètre du conducteur Diamètre sur émail Isolation de base	0,800 0,873 Polyesterimide (THEIC)	Conductor Diameter Overall Diameter Basecoat
<b>Principales caractéristiques</b>		<b>Main characteristics</b>
Indice de température	<b>192°C</b>	Thermal index
Durée de vie de 5000 h à	<b>212°C</b>	5000 h life test
Choc thermique	<b>OK at 220°C</b>	Heat shock
Thermoplasticité	<b>≥ 320°C</b>	Cut through temperature
Tension de claquage	<b>≥ 1,5 IEC values</b>	Breakdown voltage
Flexibilité	<b>10 % + 1 diam.</b>	Flexibility
Allongement	<b>40 %</b>	Elongation
Tangente Delta	<b>≥ 180°C</b>	Tangent Delta
Resistance aux agents chimiques	<b>Good</b>	Chemical resistance

These values are for information only.