MAGNEBOND® CAB-200

Properties

Magnebond® CAB-200 has the following properties:
- thermal index of 210°C,
- suitable for winding,
- high chemical and humidity resistance.

Magnebond® CAB-200 is bonded under action of heat resulting in a bonded coil similar to trickle resin or impregnated coils;
It has also a high temperature bonding strength.

Insulation

Magnebond® CAB-200 is a polyesterimide (THEIC) enameled copper wire overcoated with polyamide-imide. The final layer is a polyamide aromatic bondcoat.

Application

Magnebond® CAB-200 is designed for the production of self-bonded, electromagnetic components, produced without impregnation.
Bonding the coil is rapidly achieved in the production line resulting in higher productivity.
Applications:
Motors: fields and armature, dry type transformers and inductive coils.

Production range

The standard are:	
Diameter:	0.12 to 1.40 mm
Thickness:	Grade 1B and Grade 2B
Color:	Natural, red and green.

Using conditions

The key conditions to be respected are as following:
- optimum bonding temperature between 190 °C and 230 °C,
- accurate quantity of energy,
- minimum tightening pressure between the elements of coil being bonded.

Bonding the coils can be achieved by the joule-effect heating technique. The values for the intensity and voltage to be applied to the ends of a coil, can be determinated as follows:

$$70\ M = RI^2\ t$$

M = mass of wire in grams
R = resistance in Ohms
I = intensity in Amperes
t = length of time in seconds

MAGNEBOND® CAB-200

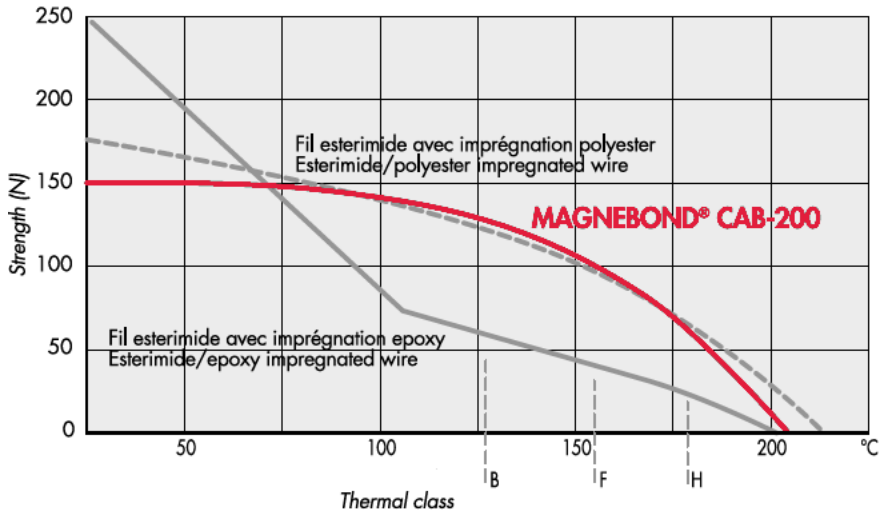
MAGNEBOND® CAB-200

Valeurs typiques d'un fil **Magnebond® CAB-200** mesurées selon les normes CEI 60 851		Typical values for a **Magnebond® CAB-200** sample according to IEC 60 851 standards
Diamètre du conducteur Diamètre sur émail Isolation de base Surcouche Couche thermo-adhérente	0,400 0,456 Polyesterimide (THEIC) Polyamide-imide Polyamide aromatic	Conductor Diameter Overall Diameter Basecoat Overcoat Bondcoat
Principales caractéristiques		**Main characteristics**
Indice de température	**210°C**	Thermal index
Durée de vie de 5000 h à	**230°C**	5000 h life test
Choc thermique	**OK at 240°C**	Heat shock
Thermoplasticité	**≥ 340°C**	Cut through temperature
Tension de claquage	**≥ 1,5 x IEC values**	Breakdown voltage
Flexibilité	**15 % + 1 diam.**	Flexibility
Allongement	**40 %**	Elongation
Tangente Delta (isolation de base)	**≥ 190°C**	Dielectric loss factor (basecoat)
Température de ramolissement (Méthode CEI 60 851-3/7-1 sur bobinage hélicoïdal)	**200°C**	Resoftening Temperature (According to helical coil test IEC 60-851-3/7-1)

These values are for information only.

Bond strength according to the temperature

(IEC 60851-3/7-2)



MAGNEBOND® CAB-200

THERMAL ENDURANCE GRAPH
- TEST VOLTAGE

MAGNEBOND® CAB-200
Nominal diameter 0,400 mm
Increase in diameter due
to the insulation 0,034 mm
Test voltage 400 V
100