

Nexans



Magnebond®
Strength by bonding

Magnebond® CAR-200

Magnebond® CAR-200 is a new class 200 selfbonding winding wire. Now, Nexans proposes a complete range of selfbonding wires.

Properties

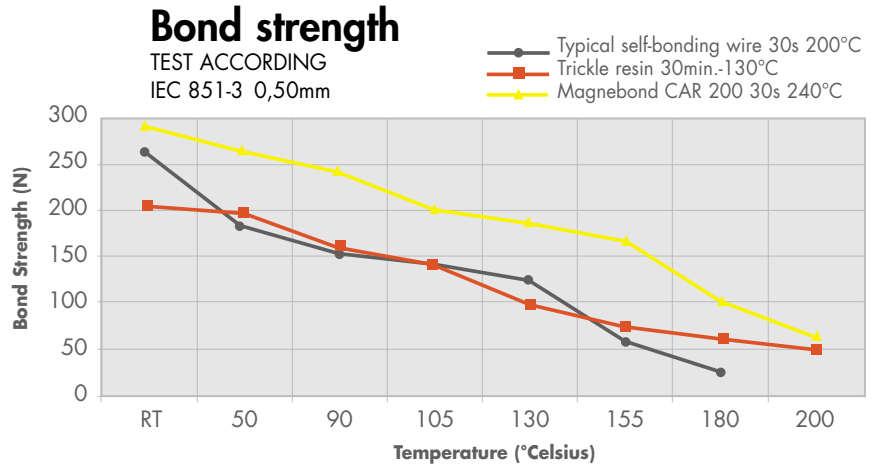
Magnebond® CAR-200 is designed for self-bonded windings, produced without supporting bobbins and without impregnation. It has a special layer of bondcoat with a very high resoftening temperature, despite the fact that the bonding operation takes place at normal bonding temperature.

Application

Due to enhanced bond strength and with the ability to withstand rotational velocities in excess of 200 km/hr, Magnebond® CAR-200 can be used for the rotor as well as the stator

allowing the suppression of all varnish impregnation operations. Independent testing has confirmed rotor stability at over 38,000 rpm. The basecoat system and the bondcoat show excellent chemical resistance, for example to diesel fuel and

reduces the need for encapsulation. Magnebond® CAR-200 is therefore recommended for the production of self-bonded windings and high temperature coils for application in the **automotive industry, power tools** and **white goods** markets.



PROPERTIES OF 0.50mm G2B/24 AWG TYPE 2 VALUES ACCORDING TO NEMA AND IEC METHODS			
MAIN CHARACTERISTICS	MAGNEBOND CAR 200	TYPICAL SELF-BONDING WIRE	
Conductor Diameter	0.497mm - 0.499mm (0.0196 inch)	0.497mm - 0.499mm (0.0196 inch)	
Overall Diameter	0.559mm - 0.561mm (0.0220-0.0221 inch)	0.566mm - 0.569mm (0.0223-0.0224 inch)	
Bondcoat increase	18 -19 µm (0.0007 inch)	18 -19 µm (0.0007 inch)	
Basecoat	THEIC-Polyesterimide	THEIC-Polyesterimide	
Overcoat	Polyamideimide	Polyamideimide	
Bondcoat	Heat resistant Polyamide	Heat resistant Polyamide	
tan δ Basecoat	195°C	190°C	
tan δ Overcoat	139°C	130°C	
Mandrel test	35% pre-elong. no cracks	35% pre-elong. no cracks	
BONDING STRENGTH PERFORMANCE	RESULTS	RESULTS	
Bond strength at 20°C (IEC 851-3 Sec 7.1)			
Test conditions	5 min 200°C	1.7 N	2.1 N
	30 min 200°C	3.2 N	3.1 N
	5 min 220°C	3.0 N	3.2 N
	30 min 220°C	3.9 N	3.5 N
Bond Strength at 155°C (IEC 851-3 Sec 7.2)			
Test conditions	30 s 200°C	147.3 N	65.3 N
	2.5 min 200°C	173.0 N	72.8 N
	5 min 200°C	175.8 N	78.2 N
Resoftening Temperature (IEC 851-3 Sec 7.1)			
Test conditions	30 min 200°C	240°C	180°C
	30 min 220°C	260°C	190°C
	30 min 240°C	270°C	220°C

These values are given only for information purpose



The future runs through Nexans

www.nexans.com
European Customer Service Tel. : +33 (0)3 44 30 52 00