

SHAPED ENAMELLED WIRES

Properties

- suitable for production of self-supported windings
- excellent high temperature bond strength
- temperature index of 225 of the base coat
- high chemical and humidity resistance

Magnebond[®] AB-220 is bonded on effect of heat resulting in a bonded coil similar to resin or varnish impregnated coils.

Insulation

Polyamide imide, the final layer consists of an aromatic polyamide bond coat.

Application

Magnebond[®] AB-220 is designed for the production of self-bonded, electromagnetic components, manufactured without impregnation. Bonding of the coil is rapidly achieved in the production line resulting in improved productivity.

Production range

Size range	Width	5.00 to 11.00 mm
	Thickness	1.20 to 3.55 mm
Thickness base coat	Base coat	Grade 1 or Grade 2
	Bond coat	0.030 to 0.060 mm (thickness)

Using conditions

The key conditions to be respected are as following: optimum bonding temperature between 160 °C and 230 °C, accurate quantity of energy, appropriate tightening pressure. 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, depend on the desired process time and tightening pressure.

Electrical properties

Breakdown voltage	Grade 1	≥ 2 kV
	Grade 2	≥ 3 kV

Mechanical properties

Elongation	> 32 %	
Bending test	flatwise, w ≤ 10 mm	4 x w
	flatwise, w > 10 mm	5 x w
	edgewise	4 x t
Pencil Hardness	4 H	

Thermal properties

Cut through temperature (base coat) *	≥ 400 °C
Re-softening temperature *	220 °C
Thermal class (base coat)	220
Heat shock	240 °C
Temperature index (base coat)*	225 °C

* measured on round enamelled wires