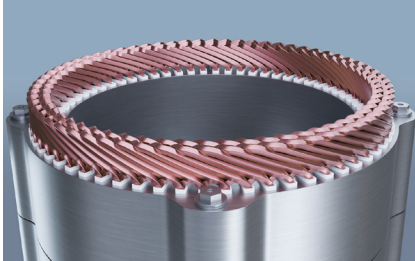


Ampact™

Bekaert PEEK-insulated copper magnet wire for high-voltage E-motors



General description

The rectangular copper wires will be used in a hairpin winding stator for vehicle applications. Reference is made to IEC60317-0-2.

Properties	Unit	Requirements (result of value)	Norm	Comments
Material				
Copper oxygen content		ETP-1 / OF	EN 1977	≤ 250 ppm possible
Specific electrical resistance	μΩ.m	≤ 0.0171 (@20°C)	EN 1977	
Geometry				
Copper dimensions				2-12mm² possible
width	mm	3.35 ± 0.015		
thickness	mm	1.85 ± 0.015		
corner radius	mm	0.6 ± 0.05		0.3-0.6 possible
Overall dimensions				
width	mm	3.65 ± 0.040		
thickness	mm	2.15 ± 0.040		
Coating thickness				
nominal	μm	150 ± 25		100-300μm possible
Mechanical				
Elongation	%	Min. 40%	IEC 60851-3	
Springback	°	Max. 5°	IEC 60851-3	
Flexibility		No cracks, no delamination, etc.	IEC 60851-3	@1x width (flat) and 1x thickness (edge)
Adhesion	mm	< 1x width	IEC 60851-3	@15% elongation
Thermal				
Heat shock		No cracks, no delamination etc.	IEC 60851-6	@1xT/1xW 30'280°C
Temperature index	°C	240	IEC 60851-6	
Electrical/Insulation				
Breakdown voltage	kV _{rms}	> 10	IEC 60851-5	@1xT/1xW U-Bend
PDIV	kV _p	> 1.5	IEC 61934 / IEC 60270	Lashed pair acc to IEC60172
Aging				
Oil		>80% PDIV & BDV	IEC 60851-4	1000h - 155°C
Air		>80% PDIV & BDV	IEC 60851-4	1000h - 155°C

Packaging

Spool type	d1 (mm)	d2 (mm)	d3 (mm)	L1 (mm)	L2 (mm)	Weight (kg)
710/127/250	710	500	127	250	180	150-200
710/127/450	710	500	127	450	380	350-450
710/127/450+	710	500	127	450	350	300-400

Pallets	Length (mm)	Width (mm)	Height (mm)
Half Euro Palet	600	800	160
Euro Palet	1200	800	160

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