



DAKAP

Rectangular conductor of copper, wrapped with PI-film, class 240

Product name:

Dakap

Specifications:

Internal LWW or customer specification

UL approval:

Not approved

Class: 240

Temperature index $\geq 240^{\circ}\text{C}$

Heat shock: $\geq 260^{\circ}\text{C}$

Insulation:

Polyimide-film

Properties:

- Excellent thermal resistance
- Excellent resistance to humidity

Field of application:

- Traction motors
- Electric machines

Standard packaging:

K500, VM630

Shelf life:

5 years, under normal ambient conditions

Conductor material:

EN 1977 - ETP1 CW003A

EN 1977 - ETP CW004A

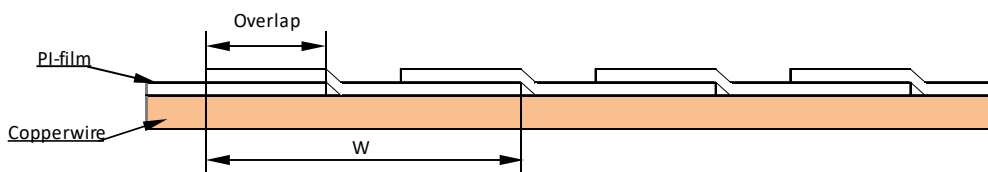
ASTM B49 - ETP C11000/C11040

Conductor corner radius

Nominal thickness of conductor (mm)		Corner radius (mm)	Tolerance
Over	Up to and including		
-	1,00	0,5 nominal thickness	+/- 25%
1,00	1,60	0,50	+/- 25%
1,60	2,24	0,65	+/- 25%
2,24	3,55	0,80	+/- 25%
3,55	-	1,00	+/- 25%

Conductor tolerances

Nominal width or thickness of the conductor (mm)		Tolerance +/- (mm)
Over	Up to and including	
-	3,15	0,030
3,15	6,30	0,050
6,30	12,50	0,070
12,50	-	0,100



Designation	PI-film 1,5 μm (PI-Teflon)	PI-film 2,0 μm (Teflon-PI-Teflon)	Overlap	Width ²⁾	Increase
Dakap 7010	-	1 film	50%	7,9 - 11,1 - 15,9	0,20 \pm 0,03
Dakap 7011	1 film	-	50%	7,9 - 11,1 - 15,9	0,15 \pm 0,03
Dakap 7020 ¹⁾	-	2 films	50%	7,9 - 11,1 - 15,9	0,40 \pm 0,03
Dakap 7021 ¹⁾	1 film	1 film	50%	7,9 - 11,1 - 15,9	0,35 \pm 0,03
Dakap 7030	-	1 film	67%	7,9 - 11,1 - 15,9	0,30 \pm 0,03
Dakap 7031	1 film	-	67%	7,9 - 11,1 - 15,9	0,23 \pm 0,03
Dakap 7053	1 film	-	53%	7,9 - 11,1 - 15,9	0,23 \pm 0,03

1. Produced with two crosswinded kaptonfilms, were each film is overlapping it self 50%

2. Depending on dimension and width/thickness ration

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Properties for DAKAP

Main characteristics	Test method	Interval	Acceptance criteria
Thermal properties			
Heat shock	IEC 60851 - 6.3 ¹⁾	$1,00 \leq t \leq 7,00$	$\geq 260^{\circ}\text{C}$
Temperature index	IEC 60172	-	$\geq 240^{\circ}\text{C}^{2)}$
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	4)	$0,01724 \Omega\text{mm}^2/\text{m}$
Conductivity	1/R	4)	$> 58 \text{ m}/(\Omega\text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4 ³⁾	All sizes	$> 3,0 \text{ kV (Dakap 7011)}$ $> 5,0 \text{ kV (all other)}$
Mechanical properties			
Elongation	IEC 60851-3.3	$1,00 \leq t \leq 2,50$	$\geq 30\%$
		$t > 2,50$	$\geq 32\%$
Springback angle	IEC 60851-3.4	All sizes	$\leq 5^{\circ}$
Flexibility	IEC 60851-3.5	$2 \leq w \leq 8 \text{ mm}$	2 x width
		$8 < w \leq 16 \text{ mm}$	4 x width
		$w > 16 \text{ mm}$	6 x width
- Bending edgewise		All sizes	2 x thickness
- Bending flatwise		All sizes	2 x thickness
Adherence	IEC 60851-3.5	All sizes	20% stretch, Loss of adhesion max. 1mm
-Cut and stretch			

1. Performed on straight piece

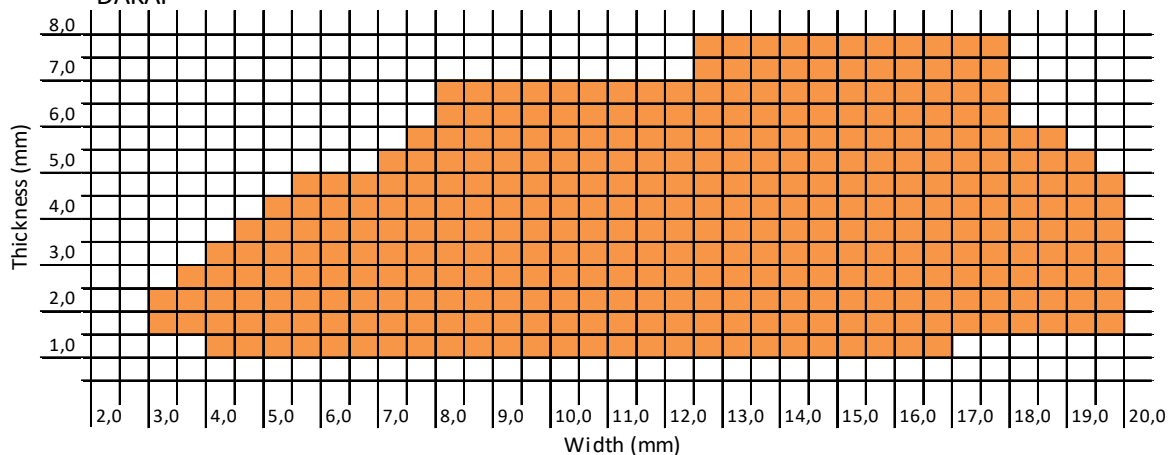
2. According to supplier certificate

3. Bent according to flexibility test

4. Dependence of dimension is expressed by the unit

Dimension range

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The technical data included is up to date at the time of printing.

LWW reserves the right to make any amendments deemed necessary

Ed.A(3)