

DAKAP

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

Product name:

Dakap

Specifications:

Internal Dahrén 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

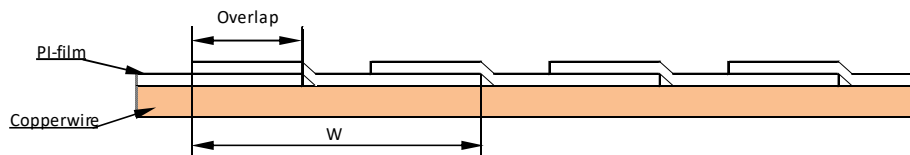
ASTM B49 - ETP C11000/C11040

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, where each film is overlapping it self 50%

2. Depending on dimension and width/thickness ration

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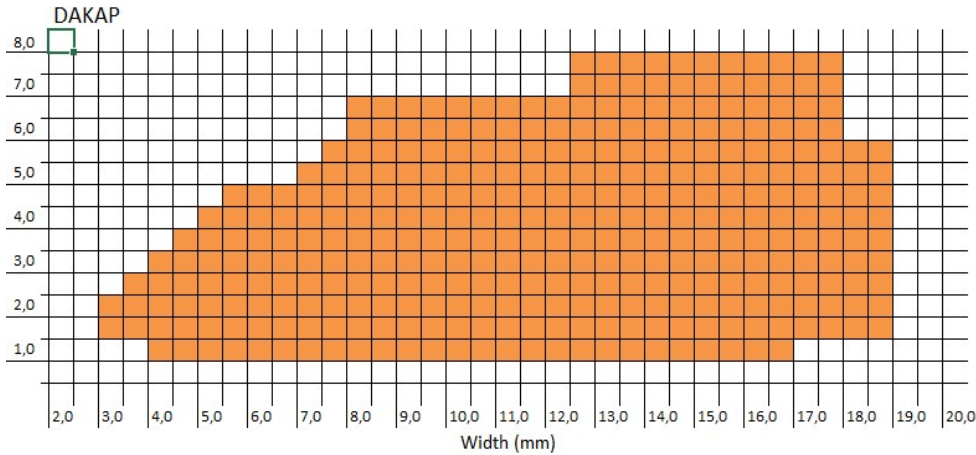
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Properties for DAKAP

Main characteristics	Test method	Interval	Acceptance criteria
Thermal properties			
Heat shock	IEC 60851 - 6.3 ¹⁾	1,00 ≤ t ≤ 7,00	≥ 260°C
Temperature index	IEC 60172	-	≥ 240°C ²⁾
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	4)	0,01724 Ωmm ² /m
Conductivity	1/R	4)	> 58 m/(Ωmm ²)
Breakdown voltage	IEC 60851 - 5.4 ³⁾	All sizes	> 3,0 kV (Dakap 7011) > 5,0 kV (all other)
Mechanical properties			
Elongation	IEC 60851-3.3	1,00 ≤ t ≤ 2,50	≥ 30%
		t > 2,50	≥ 32%
Springback angle	IEC 60851-3.4	All sizes	≤ 5°
Flexibility	IEC 60851-3.5	2 ≤ w ≤ 8 mm	2 x width
- Bending edgewise		8 < w ≤ 16 mm	4 x width
		w > 16 mm	6 x width
- 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



The technical data included is up to date at the time of printing.
Dahrén reserves the right to make any amendments deemed necessary

Rev. 4, st