DAKAP

Kapton® wrapped rectangular copper wire

Product name
DAKAP

Description
DAKAP is a bare rectangular copper wire wrapped with one or two layers polyimid film, Kapton® with Teflon®. The film is fixed through sintering of the teflon coat. This insulation has a very good thermal resistance and an excellent resistance to humidity.

Field of applications
Examples of applications for DAKAP are in traction motors and electrical machines.

Specifications
DAKAP is manufactured acc. to Dahréntråd standard or customer specification as IEC-specification is not available.

Class 240
Temperature index ≥ 240°C acc. to experience.
Heat shock ≥ 260°C.

Reels
DAKAP can be delivered on reel 500 and 630

Tolerances, (without insulation)
On a separate data sheet you can read which dimensions can be offered. The normal tolerance and corner radius you can see in the tables below.

Width mm	Tolerance mm
≥2,00 - 3,10	±0,03
>3,15 - 6,30	±0,05
>6,30 - 12,50	±0,07
>12,50 - 19,50	±0,10

Thickness mm	Tolerance mm
≥0,80 - 3,15	±0,03
>3,15 - 6,30	±0,05
>6,30 - 10,00	±0,07

Thickness mm	**Corner radius** mm Tolerance
≥0,80 - 1,00	Halfround
>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%

	Test method	Requirements
Mechanical properties Bending. W and T 2 - 8 mm 2 x W and T (8) - 16 mm 4 x W and T (16) - 20 mm 6 x W and T Stretching after cutting.	 IEC 851-3.5.1.5 IEC 851-3.5.5.1	 The insulation must not open. 20% stretching, open max 1 mm
Electrical properties Resistance Breakdown voltage. Bended samples as above 7010 7011 7020 7021 7030 7031	 IEC 851-5.3 IEC 851-5.4	 0,01724Ωmm^2/m >3 kV >3 kV >5 kV >5 kV >5 kV >5 kV

Material data for insulated rectangular wire of copper

Length in m/kg wire: Length = 112/ width x thickness (m/kg)

Insulation

1. DAKAP 7010, 1 layer with 50% overlap, Kapton 200FN919, increase 0,20 mm
2. DAKAP 7011, 1 layer with 50% overlap, Kapton 150FN019, increase 0,15 mm
3. DAKAP 7020, 2 layer with 50% overlap, Kapton 200FN919, increase 0,40 mm
4. DAKAP 7021, 2 layer with 50% overlap, Kapton 200FN919+150FN019, increase 0,35 mm
5. DAKAP 7030, 1 layer with 66,7% (2/3), Kapton 200FN919, increase 0,30 mm
6. DAKAP 7031, 1 layer with 66,7% (2/3), Kapton 150FN019, increase 0,23 mm

Dimension range

Width																Thickness mm																								
mm	0,80	0,90	1,00	1,06	1,12	1,18	1,25	1,32	1,40	1,50	1,60	1,70	1,80	1,90	2,00	2,12	2,24	2,36	2,50	2,65	2,80	3,00	3,15	3,35	3,55	3,75	4,00	4,25	4,50	4,75	5,00	5,30	5,60	6,00	6,30	6,70	7,10	7,50	8,00
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