DAMIDFIBRE EP 180

Rectangular enamelled conductor of copper, covered with glass-fibre yarn and epoxy, class 180

Product name:
Damidfibre EP 180 1
Damidfibre EP 180 2

Specifications:
Internal LWW or customer specification

UL approval:
Not approved

Class: 180
Temperature index ≥ 180°C acc. to experience
Heat shock: ≥ 200°C

Insulation:
Basecoat: THEIC-modified polyester or polyesterimide
Overcoat: Polyamide-imide
1-2 layers of glass-fibre yarn
Impregnation: Polyesterimide
Adhesive layer: Epoxy

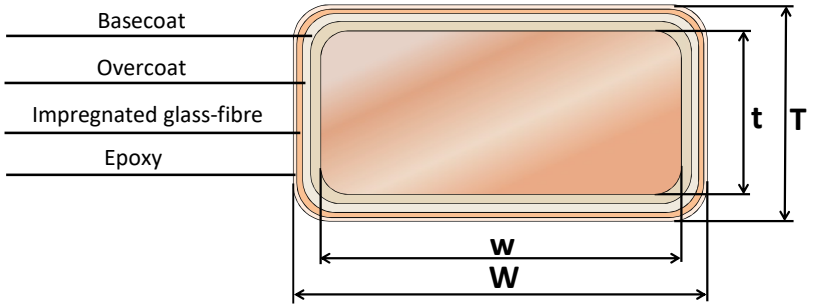
Properties:
- Excellent resistance to mechanical stress
- B-stage cured epoxy layer allows pre-pressing of windings

Field of application:
- Transformers
- Large generators
- Electric motors

Standard packaging:
K500, VM630

Shelf life:
6 month, under normal ambient conditions

Conductor material
EN 1977 - ETP1 CW003 A
EN 1977 - ETP CW004A
ASTM B49 - ETP C11000/C11040



T - t = Increase in thickness

W - w = Increase in width

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

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Insulation increase

Designation	Nominal width of conductor	Increase in thickness	Increase in width
Damidfibre 180 EP 1	2,00 ≤ w ≤ 3,15	0,30 ± 0,06	max. 0,36
	3,15 < w ≤ 6,30	0,32 ± 0,06	max. 0,38
	6,30 < w ≤ 12,50	0,35 ± 0,07	max. 0,42
	12,50 < w ≤ 20,50	0,38 ± 0,08	max. 0,46
Damidfibre 180 EP 2[1)]	2,00 ≤ w ≤ 3,15	0,37 ± 0,06	max. 0,51
	3,15 < w ≤ 6,30	0,37 ± 0,06	max. 0,53
	6,30 < w ≤ 12,50	0,42 ± 0,08	max. 0,57
	12,50 < w ≤ 20,50	0,47 ± 0,08	max. 0,63

1. Not IEC standard, values modified to suit LWW productionprocess

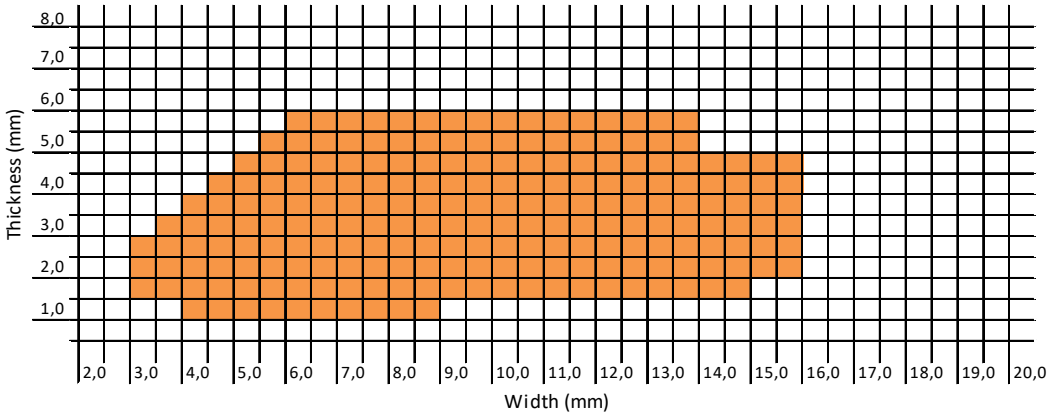
Properties for DAMIDFIBRE EP 180

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	1)	0,01724 Ωmm²/m
Conductivity	1/R	1)	> 58 m/(Ωmm²)
Breakdown voltage			
- Damidfibre EP 180 1	IEC 60851 - 5.4	All sizes	1,5 kV
- Damidfibre EP 180 2			2,0 kV
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	≤ 5,5°
Flexibility			
- Bending edgewise	IEC 60851-3.5	w ≤ 8 mm	10 x width
		w > 8 mm	15 x width
- Bending flatwise		All sizes	10 x thickness
Adherence	IEC 60851-3.5	All sizes	10 % stretch, no loss of adhesion
-Stretch			

1. Dependence of dimension is expressed by the unit

Dimension range

DAMIDFIBRE EP



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(2)

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