



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 $\geq 180^{\circ}\text{C}$ acc. to experience
 Heat shock: $\geq 200^{\circ}\text{C}$

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:

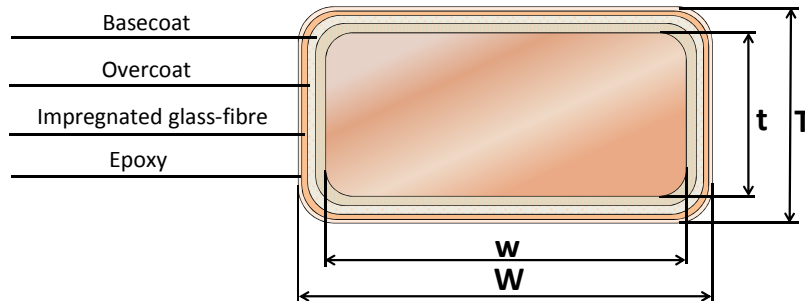
K500, VM630

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	$2,00 \leq w \leq 3,15$	$0,30 \pm 0,06$	max. 0,36
	$3,15 < w \leq 6,30$	$0,32 \pm 0,06$	max. 0,38
	$6,30 < w \leq 12,50$	$0,35 \pm 0,07$	max. 0,42
	$12,50 < w \leq 20,50$	$0,38 \pm 0,08$	max. 0,46
Damidfibre 180 EP 2 ¹⁾	$2,00 \leq w \leq 3,15$	$0,37 \pm 0,06$	max. 0,51
	$3,15 < w \leq 6,30$	$0,37 \pm 0,06$	max. 0,53
	$6,30 < w \leq 12,50$	$0,42 \pm 0,08$	max. 0,57
	$12,50 < w \leq 20,50$	$0,47 \pm 0,08$	max. 0,63

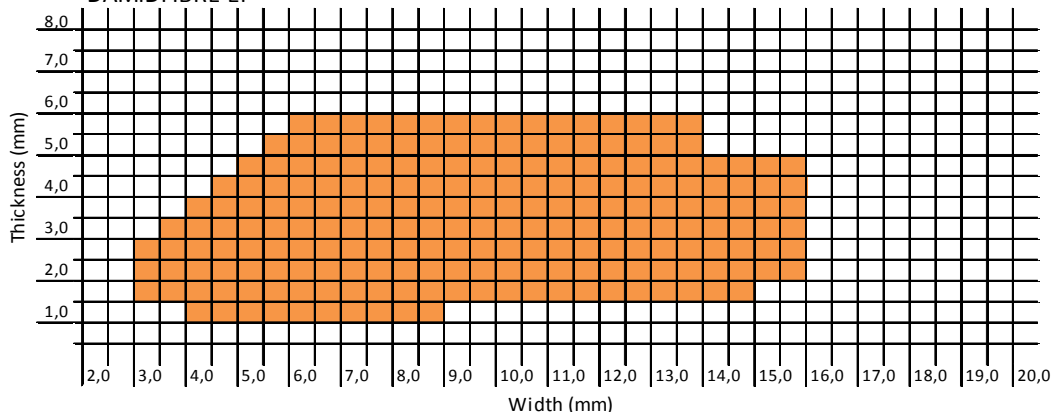
1. Not IEC standard, values modified to suit LWW production process

Properties for DAMIDFIBRE EP 180

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	1)	0,01724 $\Omega\text{mm}^2/\text{m}$
Conductivity	1/R	1)	> 58 $\text{m}/(\Omega\text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4	All sizes	1,5 kV
- Damidfibre EP 180 1 - Damidfibre EP 180 2			2,0 kV
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	$\leq 5,5^\circ$
Flexibility	IEC 60851-3.5	w \leq 8 mm w > 8 mm All sizes	10 x width
- Bending edgewise			15 x width
- Bending flatwise			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)