



DAMIDFIBRE 180

Rectangular enamelled conductor of copper, covered with glassfibre yarn, class 180

Product name:

Damidfibre 180 1

Damidfibre 180 2

Specifications:

IEC 60317-31 or customer specification

UL approval:

Not approved

Class: 180

Temperature index $\geq 180^{\circ}\text{C}$ acc. to experience

Heat shock: $\geq 180^{\circ}\text{C}$

Insulation:

Basecoat: THEIC-modified polyester or polyesterimide

Overcoat: Polyamide-imide

1-2 layers of glassfibre yarn

Impregnation: Polyesterimide

Properties:

- Excellent resistance to mechanical stress
- Heat resistant

Field of application:

- Dry-type transformers
- Electric motors
- Generators

Standard packaging:

K500, VM630

Shelf life:

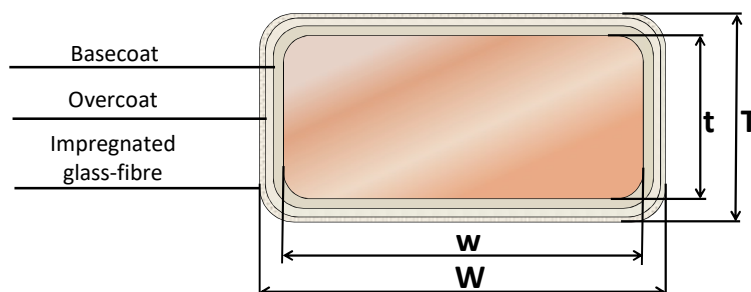
5 years, under normal ambient conditions

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 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 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

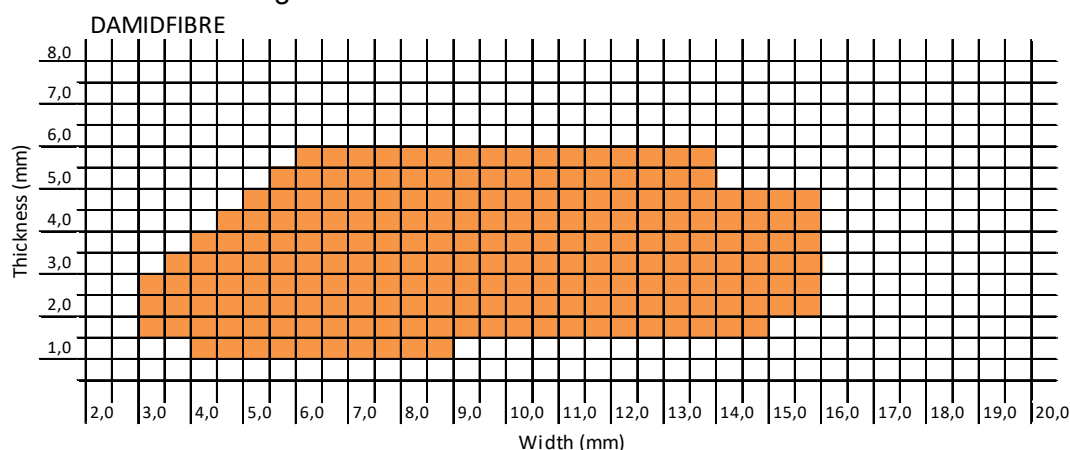
1. Not IEC standard, values modified to suit LWW productionprocess

Properties for DAMIDFIBRE 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 180 1			2,0 kV
- Damidfibre 180 2			
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	$w \leq 8 \text{ mm}$	10 x width
- Bending edgewise		$w > 8 \text{ mm}$	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



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)