



DAMIDFIBRE EP 155

Rectangular enamelled conductor of copper, covered with glassfibre yarn and epoxy, class 155

Product name:

Damidfibre EP 155 1

Damidfibre EP 155 2

Specifications:

Internal LWW or customer specification

UL approval:

Not approved

Class: 155

Temperature index $\geq 155^{\circ}\text{C}$ acc. to experience

Heat shock: $\geq 175^{\circ}\text{C}$

Insulation:

Basecoat: THEIC-modified polyester or polyesterimide

Overcoat: Polyamide-imide

1-2 layers of glass-fibre yarn

Impregnation: Polyurethane

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:

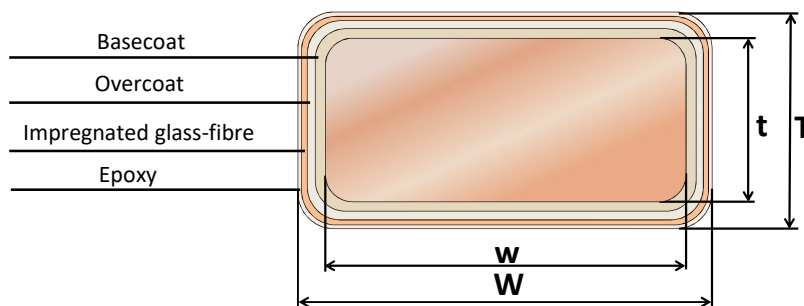
6 month, under normal ambient conditions

Conductor material

EN 1977 - ETP1 CW003 A

EN 1977 - ETP CW004A

ASTM B49 - ETP C11000/C11040



$T - t = \text{Increase in thickness}$

$W - w = \text{Increase in width}$

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 EP 155 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 EP 155 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

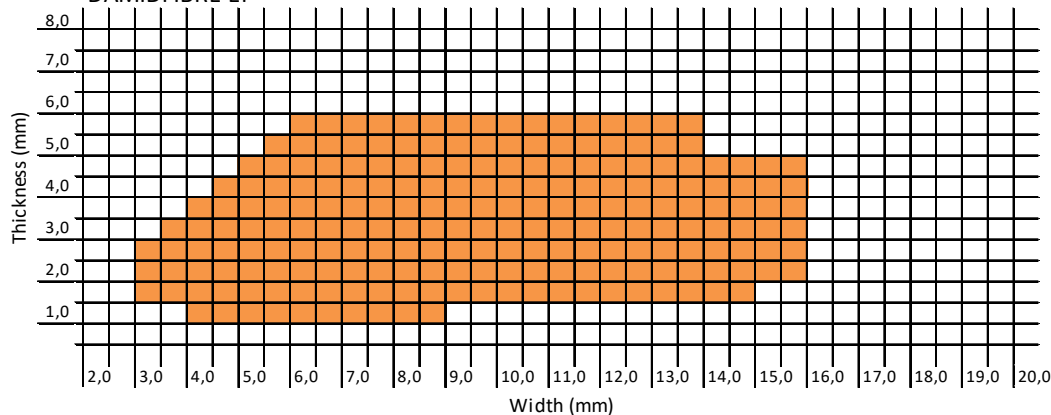
Properties for DAMIDFIBRE EP 155

Main characteristics	Test method	Interval	Acceptance criteria
<u>Electrical properties</u>			
Conductor resistance	IEC 60851 - 5.3	1)	0,01724 Ωmm²/m
Conductivity	1/R	1)	> 58 m/(Ωmm²)
Breakdown voltage	IEC 60851 - 5.4	All sizes	1,5 kV
- Damidfibre 155 EP 1			2,0 kV
- Damidfibre 155 EP 2			
<u>Mechanical properties</u>			
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	IEC 60851-3.5	w ≤ 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

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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)