

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

Properties:

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

Specifications:

Internal LWW or customer specification

Field of application:

- Transformers
- Large generators
- Electric motors

UL approval:

Not approved

Class: 155

Temperature index $\geq 155^{\circ}\text{C}$ acc. to experience
 Heat shock: $\geq 175^{\circ}\text{C}$

Standard packaging:

K500, VM630

Shelf life:

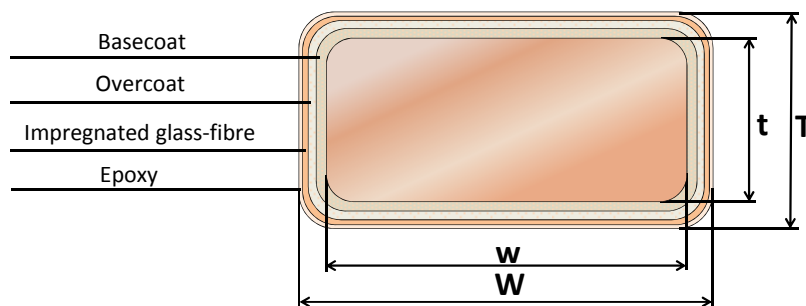
6 month, under normal ambient conditions

Insulation:

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

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 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 production process

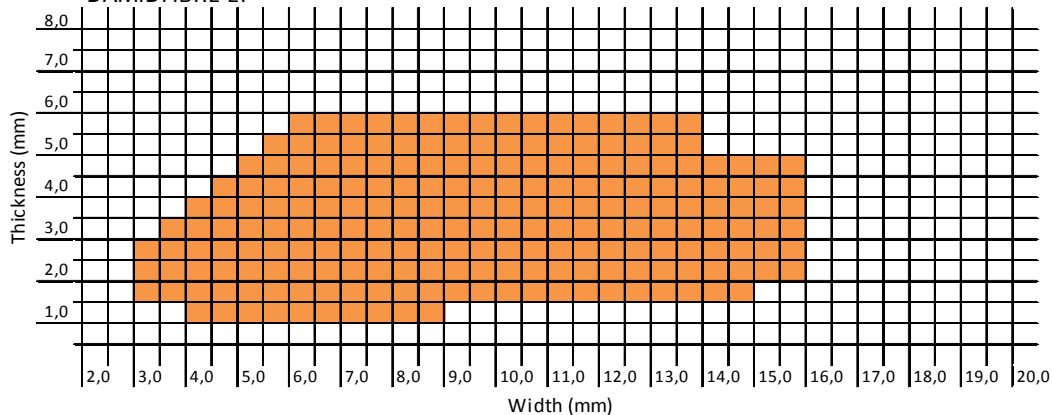
Properties for DAMIDFIBRE EP 155

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 155 EP 1 - Damidfibre 155 EP 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	$w \leq 8 \text{ mm}$	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

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)