



# DAMIDFIBRE EP 155 AL

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

**Product name:**

Damidfibre EP 155 1 AL  
 Damidfibre EP 155 2 AL

**Properties:**

- Excellent resistance to mechanical stress
- Suitable in lightweight designs

**Specifications:**

Internal LWW or customer specification

**Field of application:**

- Generators
- Large motors
- Welding equipment

**UL approval:**

Not approved

**Standard packaging:**

Drum 500 and 630

**Class: 155**

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

**Shelf life:**

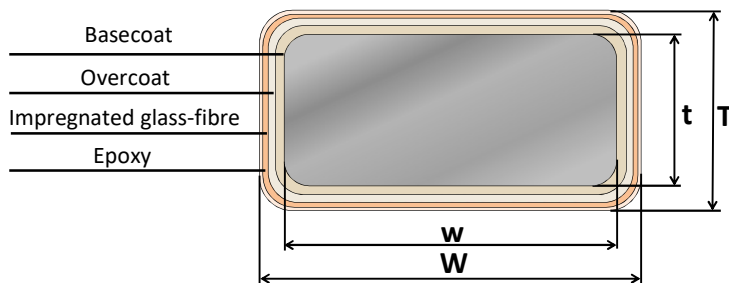
6 month, under normal ambient conditions

**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 1715 - EN AW1370 [Al 99.7]



$T - t =$  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

Certified according to ISO 9001, IATF 16949, ISO 14001

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## Insulation increase

Designation	Nominal width of conductor	Increase in thickness	Increase in width
Damidfibre EP 155 1 AL	$2,00 \leq w \leq 3,15$	$0,30 \pm 0,06$	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 AL <sup>1)</sup>	$2,00 \leq w \leq 3,15$	$0,37 \pm 0,06$	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

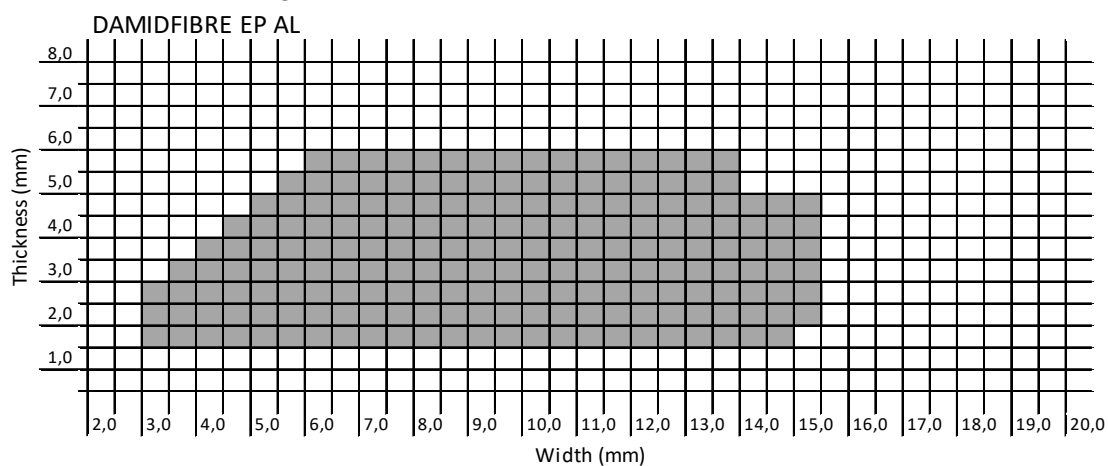
1. Not IEC standard, values modified to suit LWV production process

## Properties for DAMIDFIBRE EP 155 AL

Main characteristics	Test method	Interval	Acceptance criteria
<b>Electrical properties</b>			
Conductor resistance	IEC 60851 - 5.3	1)	$0,02817 \Omega \text{mm}^2/\text{m}$
Conductivity	1/R	1)	$> 35,5 \text{ m}/(\Omega \text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4	All sizes	1,5 kV
- Damidfibre EP 155 1 AL - Damidfibre EP 155 2 AL			2,0 kV
<b>Mechanical properties</b>			
Elongation	IEC 60851-3.3	$t \leq 3,15$	$\geq 15\%$
		$t > 3,15$	$\geq 20\%$
Flexibility	IEC 60851-3.5	All sizes	10 x thickness
- Bending flatwise			
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.

LWV reserves the right to make any amendments deemed necessary

Ed.A(3)