



DAMIDFIBRE 180 EP AL

Rectangular enamelled and glass-fibre covered conductor of aluminium, with epoxy, class 180

Product name:

Damidfibre 180 EP AL

Properties:

- Good 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: 180

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

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

Shelf life:

6 month, under normal ambient conditions

Insulation:

Basecoat: THEIC-modified polyester(imide)

Overcoat: Polyamide-imide

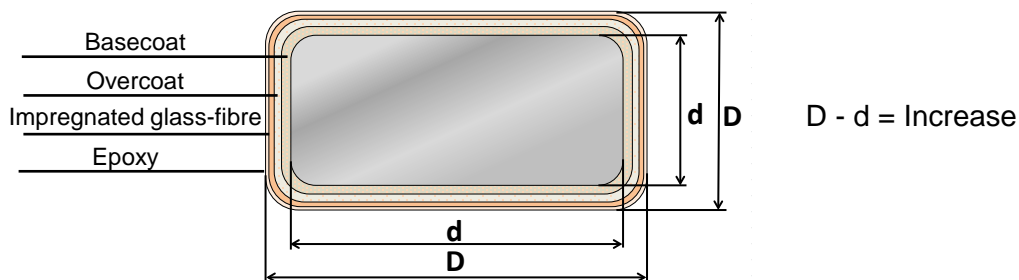
1-2 layers of glass-fibre yarn

Impregnation: Polyesterimide

Adhesive layer: Epoxy

Conductor material:

AL according to EN 1715



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

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%

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Insulation increase

Designation	Nominal width of conductor	Increase in thickness	Increase in width
Damidfibre 180 EP AL 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 AL 2¹⁾	$2,00 \leq W \leq 3,15$	$0,37 \pm 0,06$	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

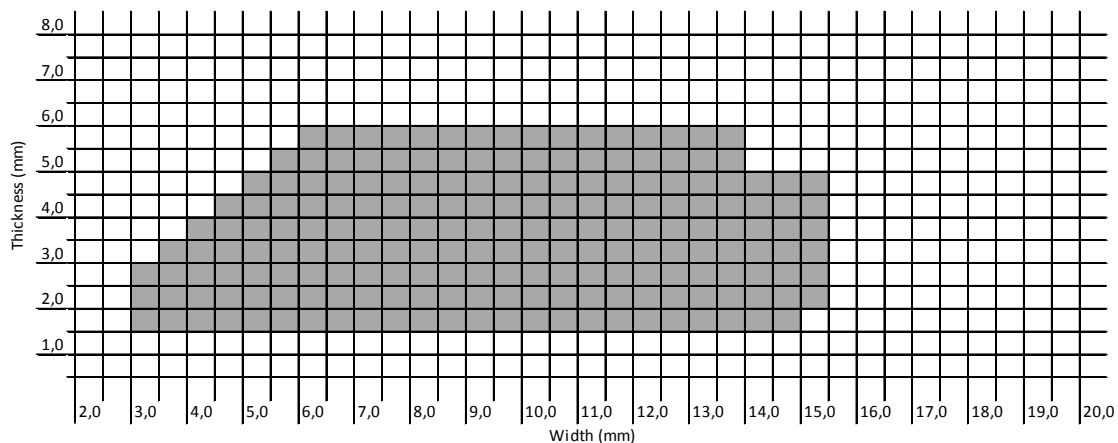
1. Not IEC standard, values modified to suit LWW production process

Properties for DAMIDFIBRE 180 EP AL

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	1)	$0,02789 \Omega \text{mm}^2/\text{m}$
Conductivity	1/R	1)	$> 35,5 \text{ m}/(\Omega \text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4	All sizes	1,5 kV
- Damidfibre 180 EP AL 1 - Damidfibre 180 EP AL 2			2,0 kV
Mechanical properties			
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.
LWW reserve the right to make any amendments deemed necessary

Liljedahl Winding Wire

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liljedahl winding wire