



SINOALUM GAFIBRE 180 AL

Rectangular conductor of aluminium, covered with glassfibre yarn, class 180

Product name:

Gafibre 180 1 AL
 Gafibre 180 2 AL
 Gafibre 180 3 AL

Specifications:

Internal OUWEI or customer specification

UL approval:

Not approved

Class: 180

Temperature index $\geq 180^{\circ}\text{C}$ acc. to experience
 Heat shock: $\geq 200^{\circ}\text{C}$

Insulation:

1-3 layers of glass-fibre yarn
 Impregnation: Polyesterimide

Properties:

- Excellent resistance to mechanical stress
- Suitable in lightweight designs

Field of application:

- Generators
- Large motors
- Magnet coils
- Welding equipment

Standard packaging:

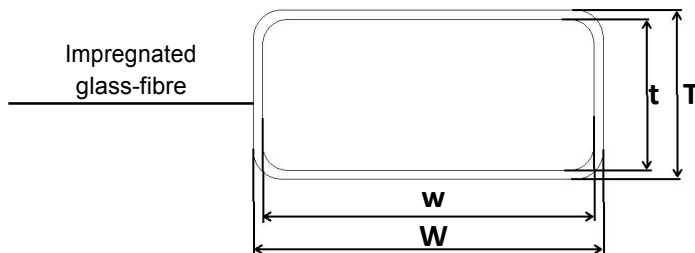
Drum 500 and 630

Shelf life:

5 years, under normal ambient conditions

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

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Insulation increase

Designation	Nominal width of conductor	Increase in thickness	Increase in width
Gafibre 180 1 AL	$2,00 \leq w \leq 3,15$	$0,16 \pm 0,04$	max. 0,20
	$3,15 < w \leq 6,30$	$0,18 \pm 0,04$	max. 0,22
	$6,30 < w \leq 12,50$	$0,21 \pm 0,05$	max. 0,26
	$12,50 < w \leq 20,50$	$0,24 \pm 0,06$	max. 0,30
Gafibre 180 2 AL	$2,00 \leq w \leq 3,15$	$0,27 \pm 0,06$	max. 0,33
	$3,15 < w \leq 6,30$	$0,30 \pm 0,07$	max. 0,37
	$6,30 < w \leq 12,50$	$0,35 \pm 0,08$	max. 0,43
	$12,50 < w \leq 20,50$	$0,39 \pm 0,08$	max. 0,47
Gafibre 180 3 AL	$2,00 \leq w \leq 3,15$	$0,44 \pm 0,09$	max. 0,53
	$3,15 < w \leq 6,30$	$0,46 \pm 0,09$	max. 0,55
	$6,30 < w \leq 12,50$	$0,50 \pm 0,11$	max. 0,61
	$12,50 < w \leq 20,50$	$0,64 \pm 0,14$	max. 0,78

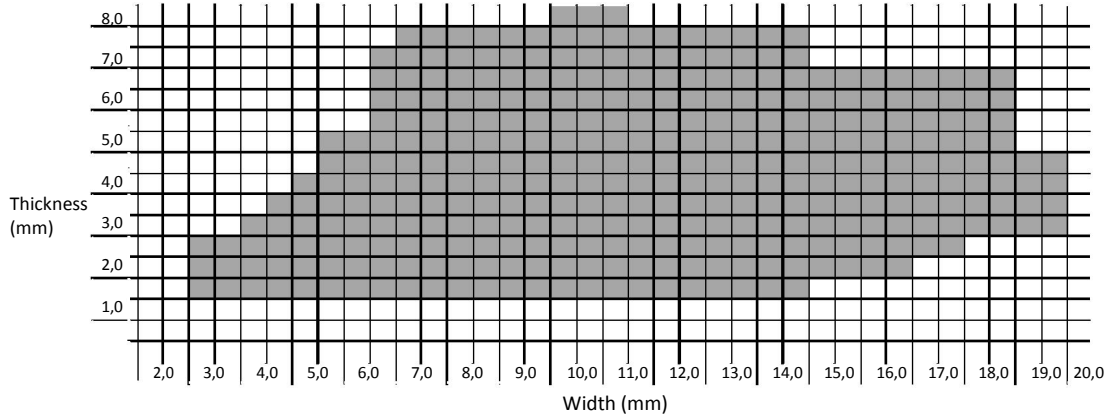
Properties for DAFIBRE 180 AL

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
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	350 V
- Dafibre 180 1 AL			560 V
- Dafibre 180 2 AL			750 V
- Dafibre 180 3 AL			
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

GAFIBRE AL



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