

# EPROF

# Fibrolux

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## COMPOSITE SHEETS AND PROFILES FOR ELECTRICAL USE

Fire properties classification to EN 45545-2 R22/R23, HL1-HL3



Self-extinguishing and halogen free



RoHS  
compliant  
ELV  
compliant

WEEE  
compliant  
RLAP  
compliant

REACH  
compliant



Corrosion and chemical resistant to a wide range of chemicals



Cost efficient



Fast and easy utilisation



Suitable for use from -100°C to +180°C



Linear stress-strain behavior



Electrically insulating



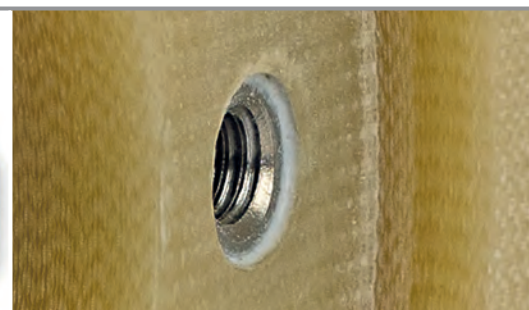
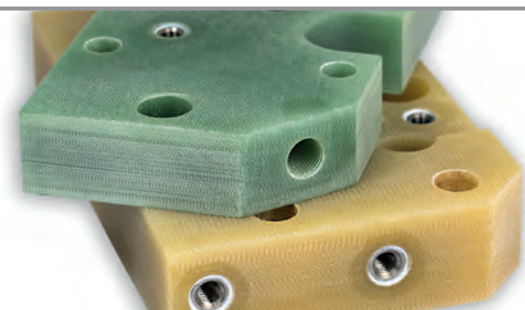
UV and weather resistant



High strength



Fire protection classification to EN 45545-2 R22/R23, HL1-HL3



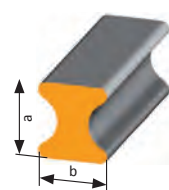
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2017-03 1006

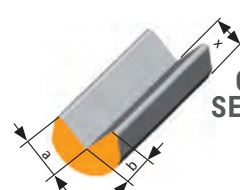
 GRP
  GFK
  TWS
  PRFV
  GVK
  PRV
  PAFS



### DOGBONES

(transverse reinforcement available on request)

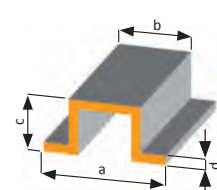
a (mm)	b (mm)	a (mm)	b (mm)
5,3	8	16	10
4,5	8		12
			13
8	6		14
10	8	18	14
11	10	19	10
			12
12	10		16
13	10	20	16
14	10	22	20
14	12	24	16
15	10	25	22



### CORNER SECTIONS

(transverse reinforced)

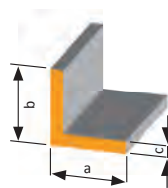
a (mm)	b (mm)	x (mm)
4,9	4,9	3,3
6	6	7
6	6	6
7	7	7
7,1	7,1	4,4
8	8	8
9	9	7,2
10	10	10
12	12	12,8
16	16	19
25	25	15
39	39	18,5



### TOP-HAT PROFILES

(transverse reinforced)

a (mm)	b (mm)	c (mm)	d (mm)
24,5	14,7	14	2,5
24,5	14,7	18	2,5
24,5	14,7	24	2,5
82	75	35	5



### ANGLES

(transverse reinforced)

a (mm)	b (mm)	c (mm)
20	20	3
25	25	3
30	30	3
30	30	5

ROHS, ELV and REACH compliant

Electrical Characteristics	
Dielectric strength transverse direction (kV/mm)	5 - 10
Dielectric strength longitudinal direction (kV/mm)	3 - 8
Loss factor at 50 Hz	13 x 10 <sup>-3</sup>
Dielectric constant, relative at 50 Hz	5,5

Mechanical Properties	
Tensile Strength (MPa)	450
Elongation at break (%)	2
Tensile Modulus (GPa)	25 - 40

Physical Properties	
Heat class (H) °C	180
Water Absorption after 24 hours (%)	0,3
Glass Content (%)	60 - 70
Density (g/cm <sup>3</sup> )	2,0
Thermal expansion (mm/m · K)	12 x 10 <sup>-6</sup>
Fire Performance UL94, halogen free	V0



### U-CHANNELS

(transverse reinforced)

20 x 21 x 4 mm  
40 x 20 x 4 mm  
70 x 30 x 5 mm



### C-PROFILES

(transverse reinforced)

25 x 15 x 11 x 3 mm  
43 x 43 x 22 x 4 mm  
45 x 20 x 15 x 4 mm



### ROUND TUBES

(transverse reinforced)

20 x 14 mm  
32 x 26 mm  
40 x 32 mm



### ROUND RODS

from 2 to 80 mm



### THREADED RODS

from M6 to M 30

## COMPOSITE SHEETS MACHINED TO CUSTOMER'S REQUIREMENTS

### Glass Reinforced Polyester Sheet

IEC 60893	NEMA LI-1	DIN 7735
UP GM 203	GPO-3	HM 2471
UP GM 203	GPO-3	HM 2472

Press moulded from unsaturated polyester resin reinforced with fibreglass mat, these sheets have excellent electrical performance combined with very low smoke emissions and toxicity in a fire situation.

#### Typical Applications

Ideal for electrical facilities in which high voltage equipment, transformers, switchgear and control cabinets are in wide spread use, as well as chemical plants exposed to corrosive environments.

### Press moulded epoxy sheets, reinforced with woven glass cloth.

EN 60893	NEMA LI-1	DIN 7735
EP GC 202	FR 4	HGW 2372.1
EP GC 204	FR 5	HGW 2372.2
EP GC 203	G 11	HGW 2372.4
EP GC 306 / 308	G 11	HGW 2372.4

Woven glass cloth reinforced epoxy sheet, offering excellent mechanical, electrical and fire performance.

#### Typical Applications

Ideal for use in HF equipment, printed circuit boards and high performance mechanical and threaded parts in chemically aggressive environments.

### Cotton fabric reinforced phenolic sheets

IEC 60893	NEMA LI-1	DIN 7735
PF CC 201	C	HGW 2082
PF CC 202	CE	HGW 2082.5
PF CC 203	L	HGW 2083

Cotton fabric reinforced phenol-formaldehyde sheets, with excellent mechanical strength and high flex resistance. These sheets offer excellent resistance to solvents, weak alkalis, oils and fuels.

#### Typical Applications

Precision machined parts, gear wheels, pressure rollers, slides and bearing shells.

### Phenolic resin sheets reinforced with phenolic resin impregnated paper (Pertinax).

IEC 60893	NEMA LI-1	DIN 7735
PF CP 201	XXP	HP 2061
PF CP 202	XX	HP 2061.5
PF CP 204	XXXPC	HP 2063

Laminated sheets of phenolic resin reinforced with paper. These sheets offer excellent mechanical and electrical performance, as well as very good weatherability and moisture resistance.

#### Typical Applications

Low voltage textile, automotive and mechanical engineering components, as well as punched parts, transformers, high voltage switches and electronic measuring devices.

## MACHINED LAMINATE UND PROFILES

machined  
Laminate

machined  
GRP-Profile