



## TECHNICAL DATA

### Pultrux Duct 01

Profile for ladders

Code: TDS-HP-CN-01

Inspection: 00

Valid from: 02/10/18

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### Product description

The PULTRUX profiles are composed of fiberglass and polyester resin. They are manufactured under the production process known as "pultrusion" giving excellent mechanical and chemical properties to the product. It is ideal for humid, corrosive, acidic, saline, alkaline environments and areas with electrical work.

The Pultrux® profiles are excellent for the manufacture of tools, stairs (industrial & residential) and signaling elements. They do not require painting, because the color of the product is integrated into the material.

### Sector

Industrial / Agricultural /Residential

Urban design

### Application

Industrial and residential stairs

Tool handles for hammers, shovels, mallets

Signal support profile



### Advantage

**Resistance to Corrosion and Chemical products.** Resistant to corrosive environments, acids, saline, alkaline and electromagnetic corrosion

**Under weight.** Corresponds to 25% of Steel and 70% of Aluminium

**Mechanical strength.** 70% of the standard commercial Steel

**Electrical and Thermal Insulation.** Tested under international standards ASTM D149 ASTM D229 y ANSI A14.5.



**Dimensional Consistency**

**Easy Mechanical Assembly.** Does not require special or heavy equipment for assembly

**Zero maintenance.** The color is an integral part of the material so it does not require painting or subsequent maintenance

**Low Integral cost.** Competitive cost compared to painted steel, low installation cost, long service life and zero maintenance costs.

### Profile

Type	Profile	Sketch	Height (mm)		Thickness (mm)	
			Web (A)	Flange (B)	Web (C)	Flange (D)
Duct			82,5	50	4	4

Length	Cut	Color
30 cm a 6 m	0° a 90°	Green, Yellow, Orange, Gray

### Technical characteristics (full section)

Physical properties	Rule	Value	Value CN-01
Density	ASTM D792 (Method A)	1,63 – 1,96 g/cm <sup>3</sup>	1,87 g/cm <sup>3</sup>
Barcol hardness	ASTM D2583	≥ 50	50
Water absorption	ASTM D570	≤ 0,75 %	0,18 %
AC Dielectric resistance	ASTM D149 (Method A) (length 2,54 cm) ANSI A14.5	≥ 25 kV	67,9 kV
DC Current leak	ANSI A14.5 (point 7.10.2) (distance electrodes = 25,4 cm, V= 90 kV)	≤ 90 microAmpers	60 microAmpers

Mechanical properties (in test tube)	Direction	Rule	Conditions	Value (ANSI A14.5)	Value CN-01	
Flexural Strength	Web	Longitudinal	ASTM D790 (Pr A)	-	> 241 MPa	649 MPa
	Flange	Longitudinal		Humidity	> 179 MPa	594 MPa
		Transversal		T <sup>a</sup> = 66 °C	> 179 MPa	369 MPa
Flexural Module	Web	Longitudinal	ASTM D790 (Pr A)	-	> 12.411 MPa	27.028 MPa
	Flange	Longitudinal		Humidity	> 9.653 MPa	26.132 MPa
		Transversal		T <sup>a</sup> = 66 °C	> 9.653 MPa	24.339 MPa
Tension Resistance	Web	Longitudinal	ASTM D638	-	> 206 MPa	677 MPa
	Flange	Longitudinal		Humidity	> 158 MPa	618 MPa
Young Module	Web	Longitudinal	ASTM D638	T <sup>a</sup> = 66 °C	> 144 MPa	519 MPa
		Longitudinal		-	> 310 MPa	635 MPa
	Flange	Longitudinal		-	> 13.790 MPa	34.268 MPa
Compression Resistance	Web	Longitudinal	ASTM D695	Humidity	> 10.342 MPa	34.130 MPa
	Flange	Longitudinal		T <sup>a</sup> = 66 °C	> 9.653 MPa	34.199 MPa
Compression Module	Web	Longitudinal	ASTM D695	-	> 19.306 MPa	32.406 MPa
		Longitudinal		Humidity	> 13.790 MPa	53.367 MPa
	Transversal	T <sup>a</sup> = 66 °C		> 10.342 MPa	25.649 MPa	
Bearing Strength	Web	Longitudinal	ASTM D695	> 9.653 MPa	38.887 MPa	
		Longitudinal		-	> 19.306 MPa	35.371 MPa
Bearing Strength	Web	Longitudinal	ASTM D953 (Pr A)	-	> 206 MPa	408 MPa
Izod impact	Web	Longitudinal	ASTM D256 (Método A)	-	> 1060 J/m	3.217 J/m

### Certificates

- Certificate of conformity according to **ANSI A14.5-2007** "American National Standard (ASC) for Ladders - Portable Reinforced Plastic - Safety Requirements American Ladder Institute" for Duct 01 Profile

The information referred to in this Technical Data Sheet is based on the experience and the tests carried out by the company, without this implying any kind of responsibility for its different applications, given that Stabilit Europa does not have any kind of control over its final use

