CLASSIFICATION TO FIRE
B s1 d0

Polylit®

# EASY OF INSTALLATION
IN A BLINK OF AN EYE

RURAL | INDUSTRIAL | COMMERCIAL | RESIDENTIAL | TRANSLUCENT

# POLYESTER SHEETS THAT KEEP THEIR TRANSPARENCE FOR LONGER

**Polylit®** polyester sheets produced in continuous process are composed of a fiberglass frame impregnated with polyester resin and protected with a gelcoat coating on both sides.

In the upper part, the gelcoat incorporates a stabilizing treatment to the U.V. that reduces the yellowing index, and therefore contributes to maintaining the passage of light for a longer time.

The range of **Polylit®** FR sheets (Fire retardant) contain excellent fire retardant properties that prevent the spread of fire in case of fire.

## Applications

- Sheet metal or panel roofs
- Fiber cement roofing
- Vertical elements
- Lighting bands
- Decorative or insulating false ceilings

## Main advantages

- Easy installation
- Wide range of solutions
- Not subject to high dilatations
- High chemical resistance
- High mechanical strength
- High impact strength
- Good light transmission

# Properties

Translucent and profiled **Polylit®** sheets are compliant with EN 1013.

## Polylit®

| THICKNESS RANGE |
|---|
| 0.8 - 1.0 - 1.3 - 1.7 mm |
| Identified with colored threads |

(*) consult **Stabilit Europa** our range of thicknesses.

## Technical properties for Polylit® in thickness 1.0 mm and 1.3 mm

| PROPERTIES | RULE | VALUE | VALUE |
|---|---|---|---|
| Thickness | EN 1013 | 1.0 mm | 1.3 mm |
| Light transmission | EN ISO 13468-1 | Transparent: 81%<br>White opal: 48% | Transparent: 77%<br>White opal: 47% |
| Linear thermal expansion coefficient | EN 1013 | 3 x $10^{-5}$ $K^{-1}$<br>(0,03 mm/m°C) | 3 x $10^{-5}$ $K^{-1}$<br>(0,03 mm/m°C) |
| Permeability to water vapor | EN 1013 | 1,5 x $10^{-5}$ mg/m h Pa | 1,5 x $10^{-5}$ mg/m h Pa |
| Thermal conductivity | EN 12667 | 0,136 W/m K | 0,136 W/m K |
| Flexural strength | EN 14125 | 120 MPa | 146 MPa |
| Tensile strength | EN ISO 527-4 | 70 MPa | 76 MPa |
| Barcol hardness | EN 59 | 40 - 45 | 40 - 45 |
| Reaction to fire | EN ISO 13501-1 | E | E |
| Impact resistance of a large soft body (1200 Joules) | XP P 38-505 | According<br>(in thickness ≥ 1.6 mm. Consult profiles that are in accordance with the test) | According<br>(in thickness ≥ 1.6 mm. Consult profiles that are in accordance with the test) |

## Polylit® FR - Fire retardant

| THICKNESS RANGE |
|---|
| 1.0 - 1.3 - 1.7 mm |

(*) consult **Stabilit Europa** our range of thicknesses.

## Technical properties for Polylit® FR in thickness 1.0 mm

| PROPERTIES | RULE | VALUE |
|---|---|---|
| Thickness | EN 1013 | 1.0 mm |
| Light transmission | EN ISO 13468-1 | White Opal: 40% |
| Linear thermal expansión coefficient | EN 1013 | 3 x $10^{-5}$ $K^{-1}$ (0,03 mm/mºC) |
| Permeability to water vapor | EN 1013 | 1,5 x $10^{-5}$ mg/m h Pa |
| Flexural strength | EN 14125 | 84 MPa |
| Tensile strength | EN ISO 527-4 | 55 MPa |
| Barcol hardness | EN 59 | 40 - 45 |
| Reaction to fire | EN 13501-1 | B s2 d0 |

**Polylit® FR (Fire Retardant):** Reaction to fire certificate according to EN 13501-1.
Classification obtained (On request): **B s2 d0**
**B s1 d0** (1,0 mm. White opal)
**B roof** (t1)
Consult with commercial area.

## Chemical properties

The high resistance to chemical agents of polyester provides an excellent performance against corrosion, resisting acid atmospheres (hydrochloric, phosphoric, sulfuric, nitric), the basic ones, salts, saline solutions, hydrocarbons, alcohols, etc., depending on its concentration and exposure temperature. Does not resist certain organic solvents or certain acids or concentrated bases. By its nature, it does not form galvanic pairs with fixations.

## Durability of the sheets

The gelcoat coating allows to maintain the initial transparency of the sheets for a longer time and to preserve its effectiveness as a natural lighting element.

The high thermal stability also makes it possible to withstand the alternation of thermal cycles without deterioration.

## Recommended applications

| 0,8 mm | 1 mm | 1,3 mm | 1,7 mm |
|---|---|---|---|
| Agricultural greenhouses.<br>Indoor facilities.<br>Provisional constructions.<br>Constructions in protected sites. | Provisional constructions.<br>Overloads of moderate wind and snow. | Constructions in exposed sites.<br>Overloads of high winds and snow. | Constructions in particularly exposed sites.<br>Great separations between straps.<br>Overloads of high winds and snow. |

## Separation between purlins

The maximum separation between purlins must be determined for each profile, depending on the load to be supported and the maximum deformation admissible according to the application (consult **Stabilit Europa** in each case). The recommended maximum distance between purlins will be 1.50 m.

## Long sheets

For longitudinal sheets longer than 6 m with valley fixings and self-tapping screws, extreme care must be taken to allow the sheet to expand freely (diameter of the hole, about 2 mm more than that of the screw shank).

## Flight length of sheet

The flight length in the eaves will not be greater than 200 mm, reinforcing in this case its fixation on the lower strap.

## Overlaps

The lateral overlaps have to be opposite to the direction of the wind and rain.

## Security

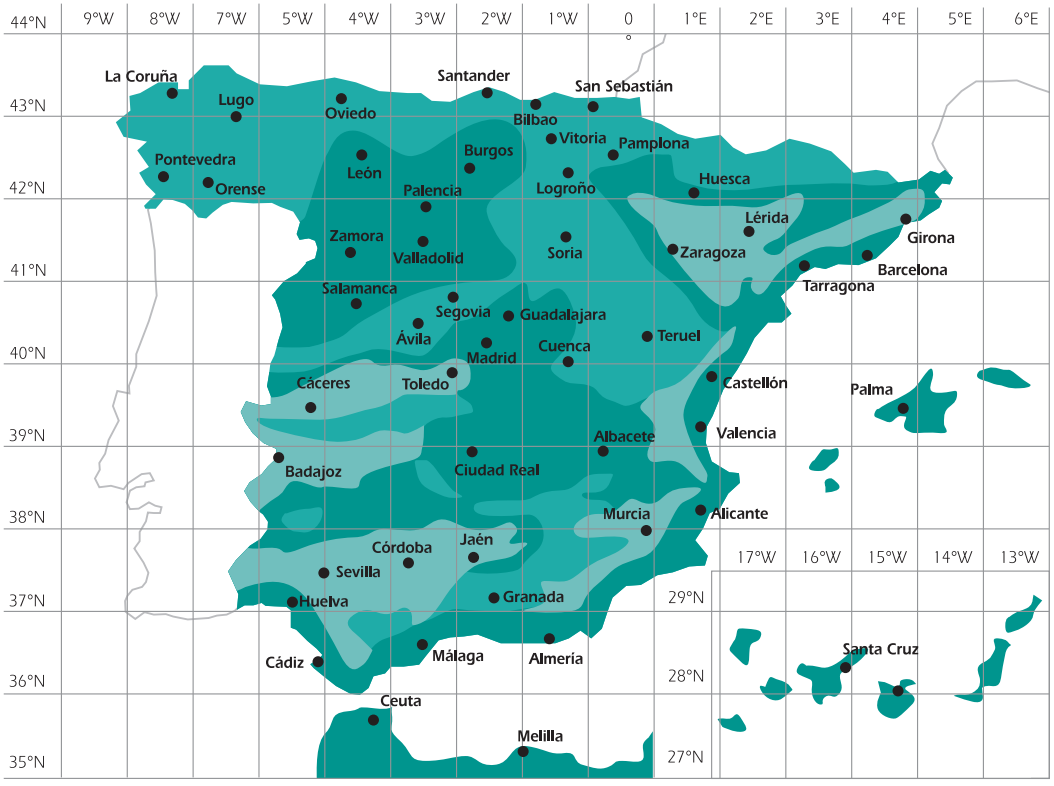
Do not step directly on the sheets, they are not passable and if necessary, do it on light wooden boards, scaffolding, etc., to avoid damaging the product and increase the safety of the operators.

## Minimum recommended pendings

| PROFILE | CREST HEIGHT (in mm) | MINIMUM RECOMMENDED PENDINGS |
|---|---|---|
|  | > 42 | ≥ 10% |
|  | ≤ 30 | ≥ 15% |
|  | > 42 | ≥ 5% |
|  | 30 - 42 | ≥ 8% |
|  | > 42 | ≥ 10% |
|  | 30 - 42 | ≥ 10% |
|  | ≤ 30 | ≥ 10% |

## Overlap and accessories

Determination of overlap lengths and sealing accessories.

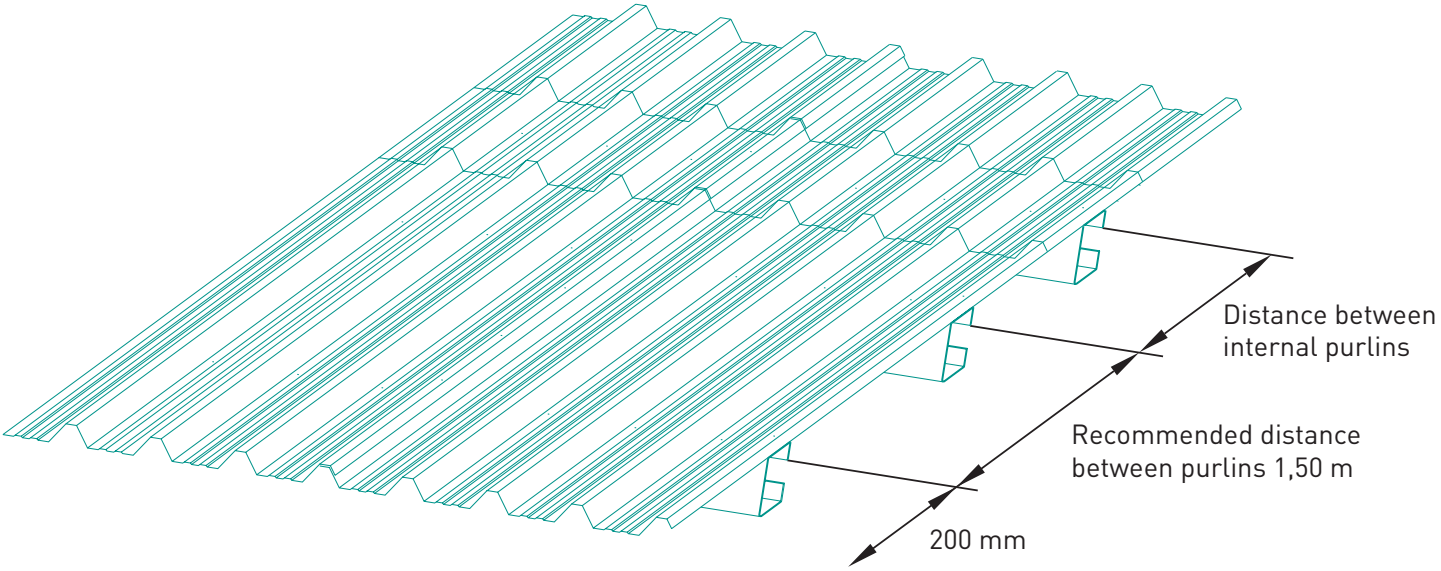


| | INCLINATION | PENDING | mm | mm | ACCESSORIES |
|---|---|---|---|---|---|
| Zone 1 | 5 | 10 | 200 | | T + L |
| | 8 | 15 | 200 | | - |
| | 11 | 20 | 200 | | - |
| | 14 | 25 | 200 | 150 | - |
| | 17 | 30 | 150 | 100 | - |
| | >20 | >35 | 150 | 100 | - |
| Zone 2 | ≤5 | ≤10 | 200 | | T + L |
| | 8 | 15 | 200 | | T + L |
| | 11 | 20 | 200 | | T |
| | 14 | 25 | 200 | 150 | - |
| | 17 | 30 | 150 | 100 | - |
| | >20 | >35 | 150 | 100 | - |
| Zone 3 | ≤5 | ≤10 | 200 | | T + L |
| | 8 | 15 | 200 | | T + L |
| | 11 | 20 | 200 | | T + L |
| | 14 | 25 | 200 | 150 | T |
| | >17 | 30 | 150 | 100 | - |
| | >20 | >35 | 150 | 100 | - |

## Fixings

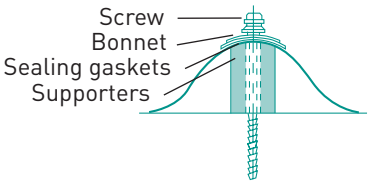
The fixings can be made by means of hooks, Solomonic screw or self-tapping screws. With self-tapping screws and trapezoidal foils, valley fixation can be carried out, in other cases it must be carried out on a crest.

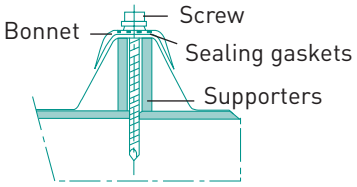
In the case of crest fixing, a support plate (made of expanded or metallic polystyrene) should be provided between the belt and the sheet. The longitudinal covering ribs must be fixed on all purlins.



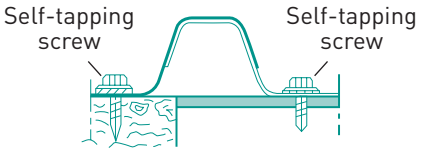

The sheets must be fixed on all the crests on the end supports and can be fixed to the staggered in the intermediate ones. Likewise all nerves must be fixed on the penultimate purlin before the ridge or eaves as well as on all the straps in exposed situations. The fixing points must be symmetrical. The holes for the passage of fixings must be made at a minimum distance of 50 mm from the edges of the sheets.

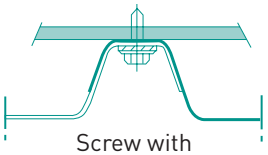
## Crest fixation




## Fixation in valle



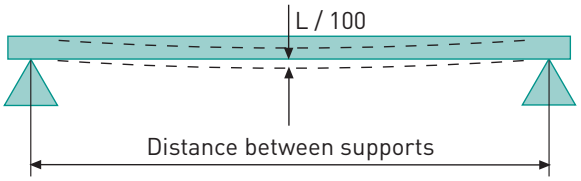

**HOW NOT TO FIX THE SCREWS**

# Permissible load

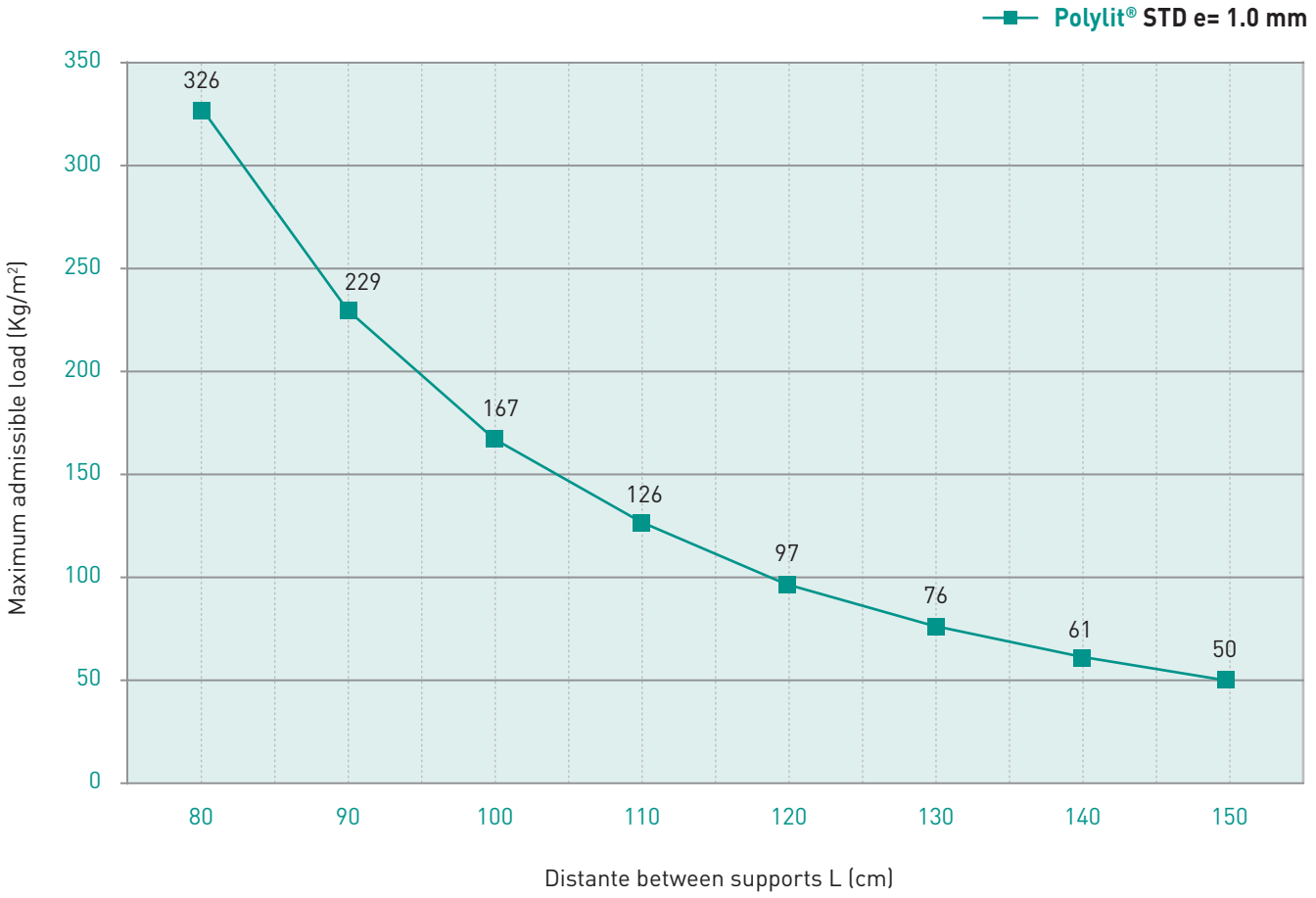
The following graph shows the theoretical capacity of maximum permissible load uniformly distributed for a maximum deformation of L / 100 on a sheet located between 2 supports at different distances between purlins.

**Stabilit Europa** recommends that the maximum distance between supports does not exceed 1.5 m.

The maximum permissible load does not represent the breaking load of the sheet, nor can it be extrapolated in the load capacity at a specific point of the same (point load), since the information refers to the uniformly distributed load.




## Maximum allowable load for arrow = L/100




Consult diagram of loads of a profile and concrete thickness to **Stabilit Europa**.

## Standard color range

### TRANSLUCENT

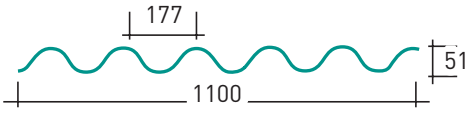
- Transparent
- White opal
- Intense green
- Intense blue and pale blue
- Any other color under minimum order

## Standard range of thicknesses

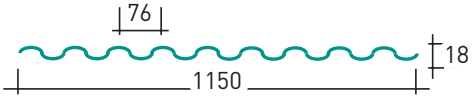
- 0.8 mm
- 1.0 mm
- 1.3 mm
- 1.7 mm

## Range of profiles

### STANDARD PROFILES



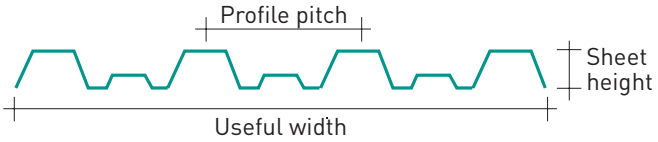

WAVE 1




WAVE 2

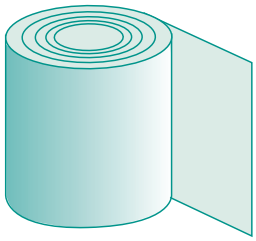
* Longitudinal wavy profile sheets.

### TRAPEZOIDAL PROFILES



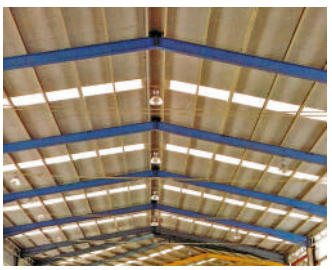

* Different profiles adaptable to any type of metal sheet or fiber cement.

### FLAT PROFILE



Flat profile rolls

Consult profile range to **Stabilit Europa**.



## Certifications

**Stabilit Europa** is distinguished by having the Quality Management System certification according to the ISO 9001 standard in all its processes.

Fire reaction certificate in **Polylit®** product according to EN 13501-1. Classification obtained: E.

Fire reaction certificate in **Polylit®** FR product according to EN 13501-1.
Classification obtained (On request): **B s2 d0**
**B s1 d0** (1,0 mm. White opal)
**B roof** (t1)

Impact test certificate 1200 J in **Polylit®** product.

## Distributor



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