



# Installation Tips & Tricks

## *Proper installation of Poly Last sheets determines the effectiveness and useful life of the material.*

Proper installation will require a basic understanding of the physical properties of Poly Last and some regard to the following:

- Feasibility of different fastening techniques;
- Temperature range to which the material will be subjected;
- Purpose of the material (i.e. wear plate or nonstick surface.)

### Fastening Methods

These are just a few of the most common fastening methods. The most important point to remember is that Poly Last material will expand and contract with temperature changes and this must be allowed for.

### Weld Washers

For material 1/4" thick and up. Useful when drilling metal substrate is not desired. Washer is welded in placed through special countersunk hole in Poly Last. Available special order from Poly Tech.

### Hammer Rivets

Used when drilling into blind areas where a nut attachment is not possible. Available from Poly Tech.

### Standard Elevator Bolt

Available from Poly Tech.

### Power-Actuated Fasteners

Power-actuated fasteners have been used but it is advisable to use a weld washer under the head of nails to provide a larger surface area to hold Poly Last material. Expansion, contraction or vibration of the material have a tendency to loosen nail-type fasteners.

### Countersink when possible

When using any fastener it is recommended to countersink the fastener head below the material surface or at least flush with it. This protects the head of the fastener from wearing off prematurely and allows better flow of soil and other materials across surface. Caution should be exercised when using a fastener with an angled head like a flat-head countersink screw. Due to the small head diameter, and the angle of the head, the Poly Last material is capable

of lifting over the top of the fastener head when material expansion occurs due to temperature increase.

### Temperature Effects

It is recommended that Poly Last be installed at a temperature of between 68° - 75°F (20°-24° C).

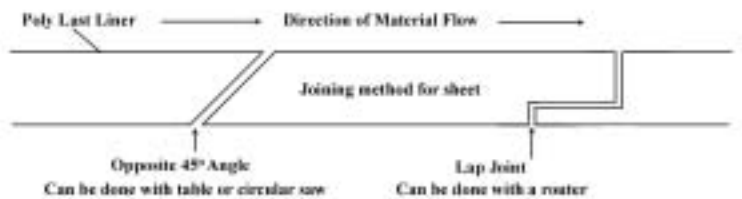
**Note:** When an installation will be subjected to extreme temperature ranges, or if it is not feasible to work at 68° - 75°F , special consideration must be taken. Please call for assistance if this is the case.

The Poly Last material should lie flat against the substrate. Do not use force to position the material between two stationary objects such as side walls of a chute. This will restrict the material from its natural movement, encouraging the material to buckle if temperature increases.

In some situations the Poly Last sheets can be butted together to help prevent material from getting under the sheet and lifting it. However, if the Poly Last will be subjected to a wide range of temperatures, consideration must be given to the highest possible temperature to which the material may be exposed. This is necessary in order to calculate the expansion of the Poly Last and to determine if a gap is needed between sheets.

### Thermal Expansion

The coefficient of linear thermal expansion for Poly Last is:  
.000078/inch/degree of F change for temperature range -22°F to +86°F.  
.0001/inch/degree of F change for temperature range +86°F to +140°F.



### Typical Spacing of Fasteners Around Sheet Perimeter

- 1/4" sheet = 6" to 8"
- 3/8" sheet = 8" to 10"
- 1/2", 5/8", 3/4" = 10" to 12"
- 1" and over = 12" to 15"

