

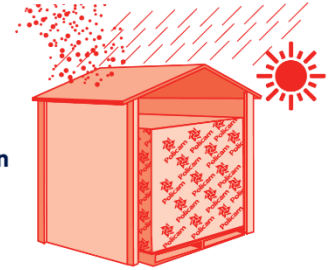
## MASKING REMOVE

- Remove the printed film before thermoforming.
- For the other processing (such as drilling, cutting) the film should not be removed to protect the sheet from contamination scratching and damage.
- Use older stock first, since the adhesion of PE masking may increase with time.
- Do not expose the sheet direct sunlight. Solar radiation and weathering may influence the properties of the film and make it very difficult to remove later on.



## STORAGE & HANDLING

- Should be stored and protected against direct sunlight, rain, snow and humidity.
- Store in a dry place at room temperature.
- Should be stacked horizontally on a flat pallet.
- It has to be taken special care while handling and transportation in order to prevent scratches and damages.
- Should be transported on a flat surface pallet.
- Do not put two pallets on top of other.



## THERMAL EXPANSION ALLOWANCE

- Necessary expansion allowance should be taken into consideration during mass assembling. (3 mm thermal expansion per meter of sheet on each edge)
- Up to 2000 mm length the hole should be drilled 6 mm bigger than screw diameter. For each 1000 mm additional length 2 mm should be added to this value.

For the information; please consult our technical department at [info@isikplastik.com.tr](mailto:info@isikplastik.com.tr)



## GENERAL HEALTH AND SAFETY PRECAUTION

- During installation of Policam SOLID SHEET all necessary arrangements should be taken to ensure safe working conditions in line with the regulation in force.
- Wear goggles, hearing protection, gloves and protective clothing as appropriate. Make sure that there is enough air circulation in the warehouse.



**10 YEARS WARRANTY**  
Please consult IŞIK PLASTİK for 10 years limited warranty conditions.

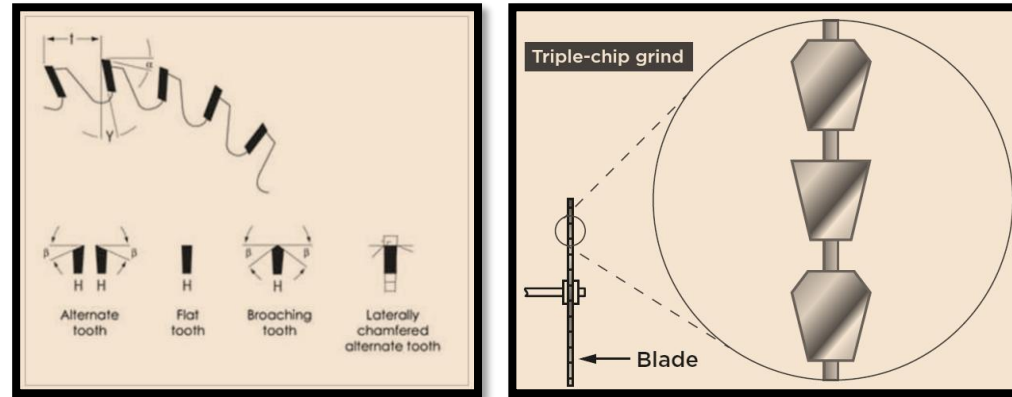
## CLEANING AND MAINTENANCE

- Wash with mild soap and rinse with clean water.
- Rinse with warm water and use a soft cloth or sponge.
- For prevention of water spots dry the sheet with moist sponge.
- Do not use abrasive chemicals or cleaners.

## 1-CUTTING

The preferred method for cutting POLICAM PC Solid Plastic Sheets is a circular blade with carbide tipped teeth using the "Triple Chip Grind" tooth design. Also, the POLICAM PC Solid Plastic Sheets can also be cut with the blade selected in accordance with the following parameters.

Cutting places of sheet should be smooth and there should be no burrs, fractures etc. caused by cutting. Micro, capillary cracks that may occur due to cutting may cause breakage on the sheet over time.



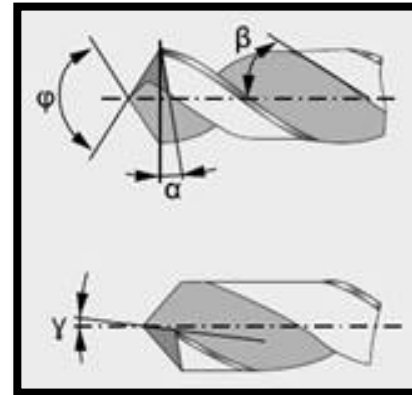
Type of sawing	Band saw	Circular saw
Tooth distance	sheet thickness below 3 mm, 1 to 2 mm	8 to 12 mm
	sheet thickness 3 to 20 mm, 2 to 3 mm	8 to 12 mm
Clearance angle $\alpha$	30 to 40 <sup>o</sup>	15 <sup>o</sup>
Rake angle $\psi$	15 <sup>o</sup>	10 <sup>o</sup>
Tooth angle $\beta$	-	15 <sup>o</sup>
Cutting speed	1200 - 1700 m/ min	2500 - 4000 m/min
Feed speed	-	20 m/min

- Band saws, circular saws and jigsaws, hand-operated saws can also be used to cut POLICAM Solid Plastic Sheets.
- It is recommended to use new or well-sharpened tools.
- At very high cutting speeds, the saw blade must be cooled with an air jet.
- The saw blade must be kept sharp to prevent melting and scaling of the sheet edges.
- It is important that the cutting part is properly supported, as vibration during cutting may cause the sheet to crack.

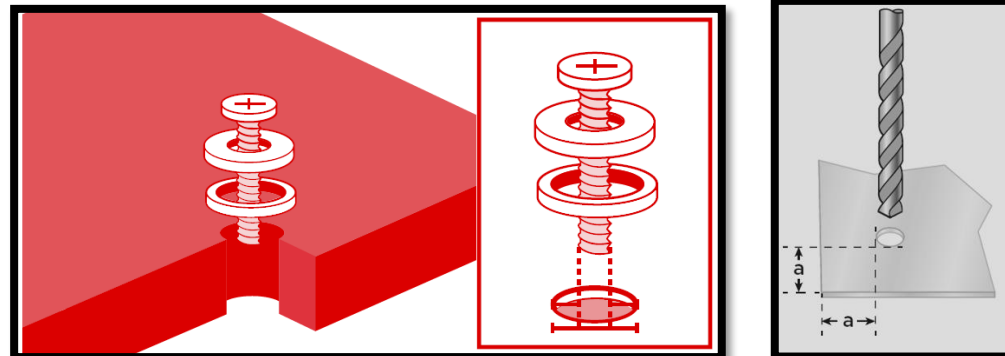
## 2- DRILLING

- The drill bit to be used for drilling should be sharp and wide angled.
- According to the hole diameter to be drilled, the following parameters must be careful. If the drill bit is not suitable, micro cracks may occur in the drilled hole, and as a result of the growth of these cracks over time, fracture may occur in the hole area.
- The sheet must be fixed and vibration must be prevented during drilling. To prevent the bottom surface from breaking or bursting, the part being drilled can be supported with MDF or plywood.

Clearance angle $\alpha$	5° – 15°	
Rake angle $\gamma$	0° – 5°	
Point angle $\varphi$	120° – 160°	
Helix angle $\beta$	20° – 40°	
<b>Hole Diameter</b>	<b>Speed (rev/min)</b>	<b>Feed (mm/min)</b>
1,5 mm	2000	150
3 mm	1750	125
6 mm	1500	100
9 mm	1000	75
12 mm	650	50



- It should be paid attention that the hole diameter should be larger than the screw diameter when drilling the sheet holes. Due to thermal expansion in plastic materials, the hole diameter to be drilled in sheets up to 2 metres long should be 6mm more than the screw diameter (e.g. 9mm hole diameter for 3mm screw diameter).
- The hole diameter to be drilled must be at least 2 times the distance from the edges (e.g. 6mm edge distance for 3mm hole diameter).
- The washer to be used in screwing should be a flexible gasket, not metal, to allow thermal movement of the sheet.

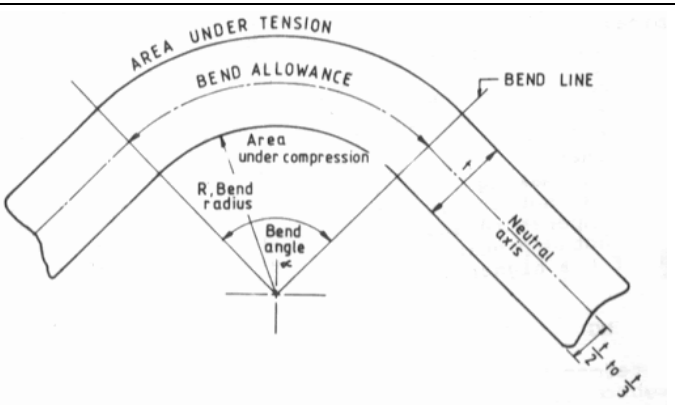


### 3- COLD BENDING

Policam PC Solid sheets can be bent using the cold bending method. To bend a polycarbonate sheet, you need to know the sheet's thickness and the required radius. During the bending process, the part to be bent is subjected to a certain amount of force. If the sheet cannot withstand these forces, it will break or cracks will occur.

The basic criterion for the minimum radius is 100 times the sheet thickness. The minimum radius that can be applied will depend on the thickness of the polycarbonate material. For example, a 3mm thick polycarbonate sheet should have a minimum radius of 300, and the bending process should be done according to this value.

The minimum radius and bending angle that can be applied according to the sheet thickness are indicated in the table below.

Sheet Thickness (mm)	Minimum Radius			Sheet Thickness (mm)	Bükme Açısı
1,5	150			1,5	90°
2	200			2	90°
3	300			3	90°
4	400			4	90°
5	500			5	60°
6	600			6	60°
8	800				

When bending thick sheets, cracks or fractures can occur due to the high stress generated in the bending area during or after bending. Therefore, the use of hot wire bending is recommended for thicknesses of 4mm and above.