

Post-Processing

Machining

□ Cutting

Electric circular power saws can be used, however, air bubbles may arise on the cut surface due to frictional heat when the sheet is thick. To avoid air bubbles, slower cutting speed or cooling process are required. Thinner sheets at 3 mm or less can be cut by shearings, and extremely thin sheets at 1 mm or less can be cut with scribers or scissors. See the following table for the compatibilities between cutting tools and sheet thicknesses.

Tool		Scissors	Hand cutting	Shearing	Jigsaw	Scriber
Thickness (mm)	1 or less	○	○	○	△	○
	2	×	△	○	○	○
	3	×	×	△	○	△
	4 or over	○	○	○	△	○

○= Suitable △= Allowable but the surface would be tough ×= Unsuitable

□ Lathing

Standard tools for steel cutting can be used. Adjust revolution rates depending on required surface conditions and heating states.

Note : Put on protectors since fragments might fly during processing.

Forming

□ Forming method

Panlite® sheet can be used vacuum molding, high pressure molding and press molding.

Optimum temperatures are between 180 and 190°C, however, air bubbles might be generated when sheets are moistened. In such a case, predrying is required.

Predrying must be carried out at a temperature between 120 and 125°C and the time ranges for predrying are shown in the following table.

Sheet thickness	Time
1mm	2 hrs or longer
2mm	4 hrs or longer
3mm	7 hrs or longer
4mm	10 hrs or longer
5mm	13 hrs or longer
6mm	15 hrs or longer

Form the sheets as soon as you put them out from the dryer. When Panlite® sheet is left in the air after drying, they will absorb moisture again in about an hour, which may cause air bubbles during forming. Optimum temperatures for forming are between 90 to 110 °C. Draft angle must be 3% or more.

Painting and printing

Acrylic, vinyl chloride-vinyl acetate copolymer-type, phenolic, and chlorinated rubber-type inks are generally applicable to both painting and printing.

Bonding Panlite® sheet / Adhesive agents suitable for Panlite®

Use inks or solvents specified by their manufacturers for polycarbonate. Also, conduct preliminary tests before use.