

Veralite® - Thermoforming

Veralite® can be thermoformed according to the principles of positive, negative or free forming, with or without the use of air pressure or vacuum.

Male forming gives a thicker bottom, whereas female forming implies thicker walls.

Free formed Veralite® needs to be kept in its desired shape, until it has reached a temperature lower than 70°C.

Following guidelines :

	Veralite® 100	Veralite® 200
Sheet temperature in °C ¹	120°C - 140°C	120°C - 200°C
One-sided heating till	1,50 mm	3,00 mm
Mold temperature in °C ²	30°C - 60°C	30°C - 60°C
Used vacuum	0,66 atm. / 0,067 mpa	0,66 atm. / 0,067 mpa
Shrinkage after thermoforming	0,40%	0,40%
Thermoformable until ³	3,00 mm	6,00 mm

The thermoforming cycle is shorter than the cycle of PVC, PMMA or PC.

Power supply needs to be as constant as possible and may not be too high.

Annealing is not needed when parts are formed according the technical guidelines. If stress cracks are occurring on a thermoformed part, the part can be reconditioned at 70°C.

Chromium steel molds give the best optical results.

Conduction heating and high frequency heating are not suitable.

Predrying is not required, however if sheets are in stock during a very long period, moisture may be absorbed, requiring predrying then. If predrying is necessary, we advise to heat the sheet during app. 24 hrs at 60°C before thermoforming the part.

Don't heat the sheet too fast, heat accumulation will damage the sheet and cause embrittlement on the formed part.

Don't cool the formed part too fast, since this may generate stress, resulting in cracking of the formed part.

¹ When Veralite® 100 is heated at temperatures that are too high, it will become white and brittle. Overheating of Veralite 200 will also cause brittleness.

² A mould that is too cold may cause tensions in a thermoformed piece, depending on thickness and complexity of the formed piece

³ With both-sided heating of the sheet.

Drape forming :

Uniaxial bent parts can be achieved by drape forming.
Moulds can be made out of wood or aluminium covered with felt.
Slight pressure is sufficient to drape the sheet over the positive mould.
Advised sheet temperature for drape forming is 130°C.
Remove the masking tape before putting the sheet into the heating oven.
Place the sheet on the mould immediately after the heating.
Let the sheet cool down in room temperature, don't force the cooling with air.
Avoid cool drafts during the processing, which may cause distortion/stress in the draped part.

All above information is based on current knowledge and experience. The data does not imply any warranty from the manufacturer towards third parties. Users should consider the above data as a guideline and gather additional information, to make independent decisions regarding the proper use, disposal, safety towards other parties and the protection of the environment.

For more specific information, please feel free to contact our technical department :

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