Hot air welding and but welding are most commonly used in fabrication. The equipment welding rods and skills employed for welding solid thermoplastic sheets are suitable.

**Hot Air Welding**
Typical joints and the necessary panel preparations are illustrated in the diagrams. Air temperatures should be about 250°C to plasticise the sheet and welding rods sufficiently for effective bonding. Welding speeds of 250-300mm/minute should avoid excessive heating, which will damage the sheet cell structure. Greater speeds can be achieved with high speed welding nozzles. Where multiple welds of a joint are necessary, the joint and surrounding area should be allowed to cool between welds: cooling between stages in fabrication is necessary to avoid distortion when the component is moved.

**Hot Plate Welding**
Butt welding of edges of sheets thicker than 3mm is possible using hot plate welding techniques. Sheet edges are plasticised through contact, under slight pressure, 0.05-0.07N/mm², with a flat plate heater at a temperature of about 220°C. A welded join is formed by withdrawing the tool, pressing the plasticised edges together under controlled pressure, 0.2-0.27N/mm², and cooling.