



## About hot air lap welding Plygene Gutterline

In some instances, it may be necessary to permanently join or fix accessories or shapes, etc. to Plygene. There are two ways this can successfully be done: one is by mechanical means as described for PVC thimbles and rigid stop ends and the other way is by welding the component parts to each other. For instance, full side angle outlets for a number of reasons often do not readily accept PVC cylindrical split thimbles. Occasionally it can be difficult to work on full side outlets because the cladding sheets get in the way and this prevents easy access for the split thimble. It can also be awkward to mould the downward flange in the liner and trap it with the split thimble and expansion bolt where it is most prone to leaking. When split thimbles cannot be used, alternative methods have to be employed.

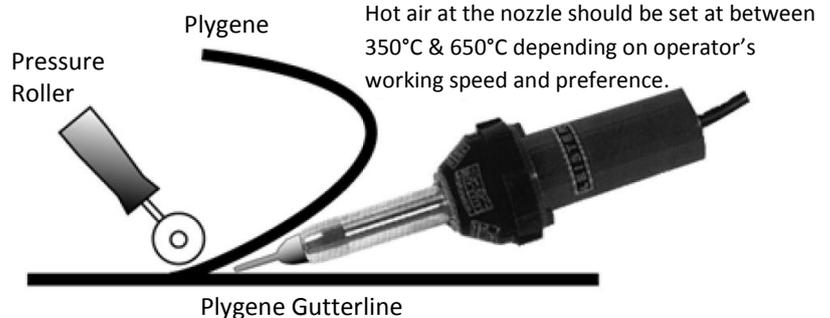
We have developed a number of alternative sealing methods to prevent water running back under the liner at outlet positions and to enable all shapes of outlets in all types of gutters to be successfully sealed by welding to the Plygene.

The following information relates to Plygene products that are or can be welded either in the factory or by the installer on-site. Hints on hot air welding follow:

All Plygene products are hot air welded. Even so, welding in a controlled environment is easier than welding on a cold, wet and windy roof. To make hot air site welding more user friendly, we manufacture accessories designed for weld-in applications from specially formulated easily weldable and bespoke mouldable Plygene.

(Different types of Plygene together with a brief description are listed later)

The basic principle of welding Plygene is to bring the touching surfaces up to equal melt temperature without unduly distorting the outer surfaces. The correct hot air heat coupled with the speed of movement and a very firm rolling pressure are the essentials.



As welding commences, the temperature at the surfaces to be welded will be dictated by a number of variable factors, for instance, if the hot air at the welding tool nozzle is set very high but the nozzle is held well back of the welding area, the actual transferred heat could be below welding requirement. Moving the heat source into the welding area will result in more heat being transferred by the welding surfaces. If combined with the very hot air being blown into the weld area, the heat source is very close and the movement very slow, then you will get melt down and surface rejection, in other words, no weld. Welding Plygene especially when working with our easy-weld range of accessories is a positive, straight forward operation. Successful welds can be achieved every time providing the basic rules are adhered to and the operator has taken the effort to practice the simple welding techniques required.

