

# Technical Datasheet

## Welding Agent E

### Product Summary

Fast evaporating solvent used as a welding solvent based on non aromatic solvents. Used for welding and bonding Plysolene PIB together using application advice below as a guide.

**Edition/date:** 2/08-07-2024

### Physical Properties

<b>Application:</b>	<b>Density:</b> 0.72
Welding Solvent	<b>Odour:</b> Low - aliphatic
<b>UN Number:</b> 1268	<b>Flashpoint Degrees C:</b> -25
<b>Colour:</b> Clear	<b>VOC Content %age Volume:</b>
<b>Water Miscible:</b>	100
No	

### Description of use

The sheeting is very easily applied to the insulated pipeline. Suitably sized pieces are cut and wrapped around the outside of the insulation. Endlaps of 80mm should be allowed and 500mm sidelaps underneath the pipes.

The overlaps are solvent welded by applying Plysolene Welding Agent E with a stiff brush. The solvent should be applied with a circular scrubbing movement to both surfaces so that they become tacky before the overlap is pressed together. The use of too much solvent can cause premature failure as the excess solvent will continue to dissolve the PIB long after the weld has been made.

PIB is a thermoplastic elastomer and does soften with increases in temperature and therefore it should not be used to hold the insulation in place around the pipe. This should be secured in place prior to covering with PIB. For very large ductwork/pipelines, having a diameter in excess of 300mm, use 1.0mm or 1.2mm.

For ventilation ductwork, the sheeting should be fully bonded to the fixed insulation material, which should be high density resin bonded glass-fibre or mineral-wool slab. If expanded polystyrene is used, the edges of the polystyrene should be well taped and all sections should butt up to one another to minimise the effects of movement and to prevent a temperature gradient existing over any gap.

The main cause of failure on ventilation ductwork is air leakage within the ventilation system.

Any air leak leads to a build-up of moist air within the insulation material that becomes wet as the air cools and condensation occurs. Over a period of time this can lead to a complete failure of the lagging. The best solution is to eliminate all air leaks, but if this is not possible, very small ventilation holes in the underside of the ductwork can prevent the build-up of moist air within the insulation.

Plysolene PIB is a flexible thermoplastic elastomeric sheet and will never give a flat rigid appearance.

Consequently, the top of any ductwork which is close to horizontal should be built-up to give rain a good run off, and the PIB and insulation material should be well supported to prevent puddling. For very large ductwork and any installation where there are numerous large flat areas, where a flatter finish is required, use either 1.0mm or 1.2mm sheeting.

The physical data has been determined in laboratory conditions to give an comparative guide to the products available in our range. Results obtained will vary under pressroom conditions and users must independently determine suitability for their given conditions and applications.

Plysolene Ltd reserve the right to alter any of the above details as required for technical or manufacturing purposes.