

## Plastic Pipe Institute Recommendation Regarding the Use of Thermoplastic Piping for the Transport of Compressed Air or Other Compressed Gases

The Plastics Pipe Institute has issued the following recommendation regarding the use of plastic pipe for compressed air systems:

“The Plastics Pipe Institute recommends that thermoplastics piping intended for the transport of compressed air or other compressed gasses be buried or encased in shatter resistant materials, unless the piping has been manufactured from materials which will resist shatter-type failures under the anticipated conditions. Specifically, aboveground installations of thermoplastic piping should only be made using products which have been suitably evaluated and which are recommended by the manufacturer for the particular intended service.

It is recognized that while adequacy of strength is an important element in the safety of a compressed gas piping system, consideration must also be given to the nature of failure should accidental failure occur, whatever its cause. Above-ground piping which fails by shattering can present a serious hazard to personnel by the resultant flying shards, or pipe fragments, which are rapidly propelled by the released energy of the suddenly decompressing gas. Because the inclination of material to fail by shattering is determined not only by the nature of the material, but by pressure, pipe and fitting dimensions, and by the nature of the gas, the evaluation of shatter resistance should consider all these and any other pertinent factors.”

*This material is “Recommendation B” from the Plastics Pipe Institute. Recommendation B was originally adopted January, 1972 and Revised October, 1997.*

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