



Technical Article

Plastic Pipes for Hydraulic Transportation of Solids

Edited by on 6. Oct. 2023

[Published in bulk solids handling, Vol. 1 \(1981\) No. 2](#)

Plastic pipes in particular High Density Polyethylene (HDPE) have found wide acceptance for the hydraulic transportation of bulk materials. This paper discusses the basic properties and applications of the various types of plastic pipes currently available.

Plastic pipes made from unplasticised PVC (UPVC), high density polyethylene (HDPE) and polypropylene (PP) have already been used successfully in many applications. PVC and HDPE pipes in particular, are well established for water and gas supply and effluent discharge. It seemed an obvious idea to use pipes made from such plastics for the hydraulic transportation of solids in view of their excellent corrosion resistance and cal properties of these plastic together with existing standards and guidelines for their use.

In addition to the above types of plastic pipes a further type termed polyamide pipes (PA) are used extensively for flushing and gravel conveying lines, but are not employed for supply or discharge lines.

Four basic criteria determine the choice of material for hydraulic transportation pipelines.