

Plastic Pipe Failure

Failures from defective pipe generally do not show up as more frequent pressure failures in the field. One cannot generally calculate the reduced life of defective pipe in the same way as one would estimate the longevity of plastic pipe from pressure. The reason is that **properly installed buried pipe does not fail as a result of pressure**. Properly installed buried pipe is under very little stress due to pressure – the majority of the load from pressure is transferred directly to the surrounding soil which supports the pipe and carries the load. So even defective pipe, if properly supported by the surrounding soil, can sustain the operating pressure for extremely long periods of time.

Buried pipe for the most part does not fail from pressure, rather it fails from what is termed “secondary loads”. Defective pipe will experience a much higher incidence of failures due to handling, installation, soil bearing loads, live loads (under roads or rail crossings), bending, tapping, etc. There will be more frequent repairs due to adjacent dig-ins from nearby utilities (electrical, gas, telephone, sewer, etc.). Unfortunately, the utility will presume, or may even be told by the manufacturer or his representative, that these types of failures are the utility’s fault and not due to faulty pipe. In many instances, this may be the case, however, when defective pipe is being installed these types of problems occur more easily and with a higher incidence than should normally be incurred.

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