

Frequently Asked Questions: Gas Pipe

1. How many extrusion lines make PE 2708 or PE 4710 ASTM D2513 compliant gas distribution pipe?

We currently have four lines in our pipe facility. Two of them are set up for production of small, <1" IPS, pipe. We are getting a new line for production of 1"-6" IPS pipe.

2. What is the OD range (in inches) of the ASTM D2513 compliant gas distribution pipe extruded?

We currently make pipe up to 1" CTS and 0.75" IPS. We are adding sizes up to 4" IPS in August of 2022 and 6" in spring of 2023.

3. What technology do you use for printing?

Teel uses a laser jet printer. This combines the flexibility of an inkjet printer with the durability of traditional indent printing. The system allows the printing of a bar code and timestamping of production time in case of questions or concerns about pipe in the field.

4. Does each extrusion line have OD and wall thickness monitoring equipment to ensure the OD and wall thickness of gas is compliant with ASTM D2513 requirements?

We use a Sikora X-ray device for OD and wall monitoring. More details on the process are available in our white paper.

5. If any gas pipe extruded potentially does not meet the ASTM D2513 requirements, how does Teel ensure such pipe never makes it to the gas distribution company end user?

Our operators put the product on NCM, which is our internal non-conformance and segregation process, and it is pulled from the line. The product is then reviewed by a quality engineer for final disposition. Items can go on NCM for a variety of reasons, and we want our operators to feel empowered to put things on NCM if they even suspect there are issues.

6. Is there an approval process prior to releasing for shipment, and, if so, what are the steps and details?

We perform 100% offline review of all online in-process data for our online gauging system. This ensures the equipment was functioning and recording data with no gaps or errors. We also perform secondary dimensional checks and quick-burst testing to show the material meets the minimum apparent tensile strength at yield per the ASTM standard and batch release testing on resin integrity per the standard.

7. What is your process for handling a pipe quality issue that may be raised by the end user?

We initiate an internal investigation once we have details on the pipe affected, including lot code and date code. Review would include checking on quality data and online data for all recently produced pipe, review of final and online quality inspections, and checking incoming raw material inspections. We always prefer to receive samples back and are willing to travel to locations for in-person inspections and information gathering when warranted.

8. What materials for PE 2708 and PE 4710 resin are available from Teel?

Chevron Philips is our only qualified supplier of gas pipe resin. We use them for both HDPE and MDPE materials.

9. Are you producing uni-modal or bi-modal pipe?

Our MDPE resin is unimodal. Our HDPE resin is bimodal.

10. How are tests on raw materials and end products performed to comply with ASTM D2513?

We perform all resin testing in our ISO 17025-certified laboratory. All final quality inspections are done by trained personnel after production is completed prior to releasing a lot for shipment. The testing performed exceeds the ASTM requirements. More details are in our testing summary.

11. In the manufacture of gas distribution pipe, does Teel ever introduce rework polyethylene material into any gas distribution pipe made?

We do not use rework. It is not allowed per PHMSA product requirements.