

Summary of Substantive Changes Between the 2009a and 2011b Editions of ASTM D2513, “Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings”

General: There were technical changes to the standard that may affect current listings. The current standard limits pipe material designation codes to PE 2708 and PE 4710. Markings for potable water, sewer, reclaimed water, communications or electrical use were prohibited.

Section 4.4, Classification: Pipe material designation codes ~~PE-2606, PE-3608, PE-3710~~ and ~~PE-4608~~ were removed from the standard; therefore, only pipe material designation codes PE 2708 and PE 4710, which have an SCG cell class of 7 are covered under ASTM D2513, to be consistent with PHMSA DOT Part 192.

~~*Polyethylene materials suitable for use in the manufacture of pipe and fittings under this specification shall be classified in accordance with Specification D3350, and as shown in — [Polyethylene materials suitable for use in the manufacture of pipe and fittings under this specification shall meet Table 1](#). PE 2606 and PE 2708 are medium density PE (MDPE) materials. PE 3608, PE 3710, PE 4608 and PE 4710 are high density PE (HDPE) materials. Example: for a polyethylene material having an HDB of 1250 psi (8.6 MPa), Cell Class 3, the base resin density must have a cell classification of 2; the melt index classification must be 3 or 4; and so forth [requirements for the applicable pipe material designation code](#).*~~

NOTE 2—References and material descriptions for PE 2306, PE 2406, [PE 2606](#), PE 3306, PE 3406, PE 3408, [PE 3608](#), [PE 3710](#), and [PE 4608](#) have been removed from D2513. Elimination of these materials does not affect the pipelines that are in service. They can still be used for gas distribution. The main reason for removing these materials from this standard is to reflect the current state of the art in PE gas distribution piping.

Table 1: Revised to list only pipe material designation codes PE 2708 and PE 4710.

Section 4.6, Additive Classes: The material color was restricted to yellow.

Section 5.4, Minimum Hydrostatic Burst Pressure/Apparent Tensile Strength (Quick Burst): Sections 5.4 and 5.5 were combined as both sizes up to 12 in and sizes greater than 12 in use the same ring tensile and quick burst test requirements.

Section 7.1.2: Identifying color was restricted to yellow.

NOTE 22: ~~*Using color to identify piping service is not mandatory, but if used, yellow color is required*~~ was deleted.

Section 7.4: Restricted markings to gas use by adding: [Markings for potable water, sewer, reclaimed water, communications or electrical use are prohibited](#).

Table A1.1, Elevated temperature sustained pressure test requirements: Revised elevated temperature requirements in Table A1.1 to be consistent with other ASTM standards.

Annex A1, In-plant quality control program for PE plastic pipe and fittings up to and including 12 in nominal diameter: Added an elevated temperature sustained pressure test, the criteria for passing and provisions for retest, and removed a multilevel plan for quick burst test.

Table A1.2, Product quality control tests: Revised ring tensile/quick burst frequency to be consistent with other ASTM standards.

Appendix X1.3, Design Stress and Internal Pressure for Natural Gas: Limited pipe material designation codes to PE 2708 and PE 4710