

Weatherability of Plastic Pipe

The Pipeline Safety Plastic Pipe Rule, 49 CFR Part 192 – Docket No. PHM-SA-2014-0098: Amdt. No. 192-124, RIN 2137-AE93 was published to the Federal Register on 11/20/18 with an effective date of 1/22/19.

This Rule incorporates by reference (IBR) the 2012 version of ASTM D2513-12ae1 into the Federal Code.

With regard to outdoor storage and stability (weatherability) of plastic pipe, the ASTM standard includes the following language:

4.10 Outdoor Storage Stability—*PE materials shall be Code C or Code E as defined in Specifications D3350. Code C material shall contain 2 to 3 percent well dispersed carbon black, and due to the absorptive properties of the carbon black, is considered to be stabilized against deterioration from unprotected exposure to UV for not less than 10 years. Code E material shall be stabilized and protected against deterioration from unprotected UV exposure for not less than 3 years.*

PolyPipe yellow PE2708 gas pipe is material Code E and has been formulated for 4 years UV exposure and, therefore, exceeds the requirements of ASTM D2513-12ae1, section 4.10 for “stabilization and protected against deterioration from unprotected UV exposure for not less than 3 years.”

PolyPipe black PE4710 gas pipe is material Code C and contains a minimum of 2% carbon black. Carbon black, at this level, is generally accepted to provide a minimum of 50 years’ protection from UV degradation, therefore, it exceeds the requirements of this standard. Unless otherwise specified, PolyPipe black gas pipe will be co-extruded with a yellow stripe for improved identification. This yellow stripe has been specifically formulated to meet the 10-year outdoor storage requirement of this standard.