

## Yellowstripe® 8300 Series

### PE 3408/PE4710 - PE100

### Technical Data Sheet<sup>(5)</sup>

### Gas Pipe

**MEETS ASTM D2513 GAS STANDARD FOR GAS PRESSURE PIPE, TUBING AND FITTINGS**

**Typical Material Physical Properties of YELLOWSTRIPE® 8300 Series**

**High Density Polyethylene Materials**

Property	Unit	Test Procedure	Typical Value
PPI Listing Designations <sup>(1)</sup>	--	PPI TR4	PE 3408 <sup>(2)</sup> PE 4710 <sup>(2)</sup> PE 100
Cell Classification	---	ASTM D 3350-05	445576C <sup>(3)</sup>
Density	gm/cc	ASTM D 1505	0.961 (black)
Melt Flow, MI (2.16 Kg/190°C)	gm/10min	ASTM D 1238	0.11
Melt Flow, MI (21.6 Kg/190°C)	gm/10min	ASTM D 1238	8.00
Thermal Expansion/Contraction	in/in/°F	ASTM D 696	1x10 <sup>-4</sup>
Flexural Modulus @ 2% strain	psi	ASTM D 790	140,000
Tensile Strength @ Yield	psi	ASTM D 638	> 3500
Slow Crack Growth (PENT)	hours	ASTM F 1473	> 5000
Color; UV Stabilizer	%	ASTM D-3350	>2
Elastic Modulus	psi	ASTM D-638	200,000
Brittleness Temperature	°F (°C)	ASTM D 746	-180 (118)
Vicat Softening Temperature	°F	ASTM D 1525	255
Hardness	Shore D	ASTM D-2240	65
Hydrostatic Design Basis @ 73°F (23°C)	psi	ASTM D 2837	1600
Hydrostatic Design Basis @ 140°F (60°C)	psi	ASTM D 2837	1000
Minimum Required Strength (MRS) @ 20°C (68°F)	MPa (psi)	ISO 9080	>10 (145)
Rapid Crack Propagation (RCP) <sup>(4)</sup> Critical Pressure (Pc), 0° C Critical Temperature (Tc), 5 bar	bar (psi) °C (°F)	ISO 13477 ISO 13477	> 12 bar (> 174 psi) < -17°C (< 2° F)

For more information and technical assistance contact:

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1. YELLOWSTRIPE® 8300 pipe material is listed in PPI TR-4 for use in natural gas distribution.
2. Meets new requirements for PE4710 material. 49 CFR Part 192 references older versions of the standard that do not yet recognize the new requirements and carry the PE3408 designation. The pipe will be dual marked as long as required by 49 CFR Part 192.
3. Previous versions of ASTM D 3350 would have assigned a cell classification of 345564C or 345566C.
4. Determination made on 8" DR 11 pipes. No failures occurred. Pc calculated in accordance with ISO 13477 Annex C correlation.
5. NOTICE- This chart provides typical physical property information for polyethylene resins used to manufacture Performance Pipe polyethylene piping products. It is intended for comparing polyethylene pipe resins. It is not a product specification, and it does not establish minimum or maximum values for manufacturing tolerances for resins or for piping products. Some of the values were obtained from tests of specimens taken from molded plaques and can vary from these typical values. Performance Pipe has made every reasonable effort to ensure the accuracy of this chart, but this chart may not provide all necessary information, particularly with respect to special or unusual applications.

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Bulletin: PP 108

Revision Date February, 2006

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Before using the piping product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the piping product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the piping product is suited and the information is applicable to the user's specific application. This data sheet provides typical physical property information for polyethylene resins used to manufacture the piping product. It is intended for comparing polyethylene piping resins. It is not a product specification, and it does not establish minimum or maximum values or manufacturing tolerances for resins or for the piping product. These typical physical property values were determined using compression-molded plaques prepared from resin. Values obtained from tests of specimens taken from the piping product can vary from these typical values. Performance Pipe does not make, and expressly disclaims, all warranties, of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, allegedly arising from any usage of trade or from any course of dealing in connection with the use of information contained herein or the piping product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with th