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Yellowstripe® 8300 Series PE4710-PE100 / (PE3408) Pipe Pipe Data Sheet

Typical material Physical Properties of Yellowstripe® 8300 series PE4710-PE100 / (PE3408)

High Density Polyethylene Materials

Property	Unit	Test Procedure	Typical Value
Material Designation	---	PPI-TR4	PE4710 ⁽¹⁾ PE100
Cell Classification	---	ASTM D3350	445574C 445576C
Pipe Properties			
Density	gms / cm ³	ASTM D1505	0.961 (black)
Melt Index (HLMI) Condition 190 / 21.6	gms/10min	ASTM D1238	8.0
Hydrostatic Design Basis, 73°F (23°C)	psi	ASTM D2837	1,600
Hydrostatic Design Basis, 140°F (60°C)	psi	ASTM D2837	1,000
Minimum Required Strength	Mpa (psi)	ISO 9080	>10 (>145)
Rapid Crack Propagation Critical Pressure(Pc), 0°C(32°F) ⁽²⁾	Bar (psi)	ISO 13477	>12bar (>174) psi
Pipe Test Category	---	ASTM D2513	CEE
Material Properties			
Flexural Modulus at 2% strain	psi	ASTM D790	>150,000
Tensile Strength @ Yield (Type IV)	psi	ASTM D638	>3,500
Elongation at Break 2 in / min., Type IV Bar	%	ASTM D638	>800
Elastic Modulus @ Secant 2% strain (2in/min., type IV bar)	psi	ASTM D638	>200,000
Hardness	Shore D	ASTM D2240	65
PENT	hrs	ASTM F1473	>5000
Thermal Properties			
Vicat Softening Temperature	°F	ASTM D1525	255
Brittleness Temperature	°F	ASTM D746	-180
Thermal Expansion	in / in / °F	ASTM D696	1.0 x 10 ⁻⁴

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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

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1. Meets new requirements for PE4710 materials and use of increased design factors. 49CFR Part 192 references older versions of the PPI document that do not yet recognize the new requirements and carry the PE3408 designation.
2. Determination made using Small-Scale Steady state. P_c calculated in accordance with ISO 13477.

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NOTICE: This data sheet provides typical physical property information for polyethylene resins used to manufacture PERFORMANCE PIPE polyethylene piping products. 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 piping products. Some of these typical physical property values were determined using compression molded plaques. Values obtained from tests of specimens taken from piping product can vary from these typical values. Performance Pipe has made every reasonable effort to ensure the accuracy of this data sheet, but this data sheet may not provide all necessary information, particularly with respect to special or unusual applications. The data sheet may be changed from time to time without notice. Contact Performance Pipe to determine if you have the most recent edition.

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