



DESIGN-FLOW® High Density Polyethylene Pipe for Municipal & Industrial PE4710 Nominal Physical Properties*

Typical Specification	ASTM Test Method	Nominal Values
Density	ASTM D 1505	.959 gm / cm ³
Melt Index ¹	ASTM D 1238	7.0 gm / 10 min.
Tensile Strength		
@ Yield (2 in/min)	ASTM D 638	3600 psi
@ Break (2 in/min)	ASTM D 638	4500 psi
Hydrostatic Design Basis (HDB)		
@ 23° C (73.4° F)	ASTM D 2837	1600 psi
@ 60° C (140° F)	ASTM D 2837	1000 psi
HDB Design Factor (DF)	PPI TR-4	0.63
Elongation @ Break (2 in/min)	ASTM D 638	>740%
Flexural Modulus ²	ASTM D 790	150,000 psi
Notched Izod Impact Strength	ASTM D 256	9.0 ft-lbf / in
Hardness (Shore D)	ASTM D 2240	68
Brittleness Temperature	ASTM D 746	< -103 ° F
Slow Crack Growth PENT, hours	ASTM D1473	>10,000 hrs
NSF	STANDARD 61	APPROVED
Cell Classification	ASTM D 3350	445574C
Vicat Softening Point	ASTM D 1525	257 ° F

DESIGN-FLOW® High Density Polyethylene Pipe for M & I is manufactured to ASTM F 714, ASTM D 3035, AWWA C901/C906 and NSF standards as applicable. Standard color of pipe is black with blue print line.

Notes: ¹ 190° C / 21,600 g; ² 2% Secant - Method 1

*This list of typical physical properties is intended for basic characterization of the material and does not represent specific determinations of specifications. The physical properties values reported herein were determined on compression molded specimens prepared in accordance with procedure C of ASTM D 4703 and may differ from specimens taken from pipe.