Technical Data Sheet

Alathon L5008

High Density Polyethylene

Product Description

Alathon L5008 is a bimodal, high molecular weight, high density polyethylene resin with excellent processing characteristics. L5008 is selected by customers for demanding pressure pipe applications. When combined with an approved color or black masterbatch at the correct use level, L5008 may meet the following standards or requirements (see Technical Data Sheet for limitations and more information):

- ASTM D3350 Cell Classifications: **PE445564C CC0, PE445564E CC0, PE445565C CC0,** and **PE445565E CC0**
- NSF Standard 14 and Standard 61 for Potable Water Pipe and Fittings
- NSF Standard 358-1 for PE Pipe and Fittings for "Geothermal" Heat Pump Systems
- PE80 per ISO 9080 & ISO 12162
- Plastics Pipe Institute (PPI) PE 3408 and PE4608 per PPI TR-3

Application	Drinking Water Pipe
Market	Industrial, Building & Construction; Pipe
Processing Method	Pipe

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate					
(190 °C/2.16 kg)	0.07	g/10 min	0.07	g/10 min	ASTM D1238
(190 °C/21.6 kg)	16	g/10 min	16	g/10 min	ASTM D1238
Density, (23 °C)	0.949	g/cm³	0.949	g/cm³	ASTM D1505
Mechanical					
Flexural Modulus, (2% Secant)	141000	psi	972	MPa	ASTM D790
Tensile Stress at Break	4970	psi	34.3	MPa	ASTM D638
Tensile Stress at Yield	3560	psi	24.5	MPa	ASTM D638
Tensile Elongation at Break	635	%	635	%	ASTM D638
PENT, (2.4 MPa, 80 °C, Air)	>100	hr	>100	hr	ASTM F1473
Value was determined on L5008 compounded with an approved masterbatch.					
Thermal					
Deflection Temperature Under Load, (66 psi, Unannealed)	154	°F	68	°C	ASTM D648
DSC Induction Temperature	500	°F	260	°C	ASTM D3350
Oxidative-Induction Time, (200 °C)	100	min	100	min	ASTM D3895
Value was determined on L5008 compounded with an approved masterbatch.					
Conformance Testing					
Hydrostatic Design Basis					
(73 °F)	1600	psi			ASTM D2837
(140 °F)	1000	psi			ASTM D2837
Minimum Required Strength, (20 °C)			8	MPa	ISO 12162