

## Technical Data Sheet

### *Alathon* L5008HP

High Density Polyethylene

#### Product Description

*Alathon* L5008HP is a bimodal, high molecular weight, high density polyethylene resin with excellent processing characteristics. L5008HP is selected by customers for pressure pipe applications including industrial piping, mining, oil & gas gathering, municipal water service lines and sewers. Please contact your LyondellBasell Technical Service Engineer or Sales Manager for an approved color and black masterbatch list. When L5008HP is combined with a LyondellBasell approved color or black masterbatch at the correct use level, this compound may meet the following standards or requirements:

- ASTM D3350 Cell Classifications: **PE445574C, PE445574E**
- 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
- Plastics Pipe Institute (PPI) PE 4710 per PPI TR-3

<b>Application</b>	Drinking Water Pipe
<b>Market</b>	Industrial, Building & Construction; Pipe
<b>Processing Method</b>	Pipe

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
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/cm <sup>3</sup>	0.949	g/cm <sup>3</sup>	ASTM D1505
<b>Mechanical</b>					
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 on Natural Resin, (2.4 MPa, 80 °C, Air)	3200	hr	3200	hr	ASTM F1473
<b>Thermal</b>					
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 L5008HP compounded with an approved masterbatch.					
<b>Conformance Testing</b>					
Hydrostatic Design Basis					
(73 °F)	1600	psi			ASTM D2837
(140 °F)	1000	psi			ASTM D2837