

Technical Data Sheet

Alathon 8005M-5

High Density Polyethylene

Product Description

Alathon 8005M-5 is a high molecular weight, high density polyethylene copolymer with broad, bimodal molecular weight distribution. Typical applications are non-pressure-rated pipes produced by corrugation or profile wall extrusion. *Alathon* 8005M-5 should not be used in smooth wall pipes that will contain fluids at pressures above ambient. *Alathon* 8005M-5 meets the following standard:

- ASTM D3350 Cell Classification: **PE445540A**

Application Drainage Pipe

Market Pipe

Processing Method Pipe

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/21.6 kg)	8.0	g/10 min	8.0	g/10 min	ASTM D1238
Density, (23 °C)	0.949	g/cm ³	0.949	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (2% Secant)	144000	psi	993	MPa	ASTM D790
Tensile Stress at Break	5500	psi	38	MPa	ASTM D638
Tensile Stress at Yield	3700	psi	26	MPa	ASTM D638
Tensile Elongation at Break	>500	%	>500	%	ASTM D638
Environmental Stress Crack Resistance					
F ₅₀ (10% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
F ₅₀ (100% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Thermal					
Low Temperature Brittleness	<-98	°F	<-72	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	169	°F	76	°C	ASTM D648
Oxidative-Induction Time, (200 °C)	>40	min	>40	min	ASTM D3895
Thermal Stability	>428	°F	>220	°C	ASTM D3350