

INEOS HDPE K44-15-122

High Density Polyethylene Copolymer
INEOS Olefins & Polymers USA

Technical Data		
Product Description		
K44-15-122 is a natural high-density polyethylene copolymer designed specifically for extrusion of pipe. It has NSF Standard 14 certification for potable water applications, complies with ANSI/NSF Standard 61 health effects requirements, and is recognized by the Plastic Pipe Institute as having a pipe material designation code of PE 3608 (formerly PE 3408). A pressure rated formulation is also produced when this product is extruded in combination with an Ineos approved black masterbatch. The resulting formulation known as K44-15-123 has NSF Standard 14 certification and complies with ANSI/NSF Standard 61 health effects requirements, is certified to CSA Standard B137.1-05 and B137.4-05, and is listed with the Plastic Pipe Institute as having a PE 3608 (formerly PE 3408) and PE80 pipe material designation code.		
General		
Material Status	• Commercial: Active	
Literature ¹	• Processing - Injection Molding (English) • Technical Datasheet (English)	
Search for UL Yellow Card	• INEOS Olefins & Polymers USA	
Availability	• North America	
Features	• Copolymer	• High Density
Uses	• Piping	
Agency Ratings	• CSA B137.1-05 • CSA B137.4-05 • NSF 14	• NSF 61 • PPI PE-3408 • PPI PE-3608 • PPI PE-80
RoHS Compliance	• Contact Manufacturer	
Appearance	• Natural Color	
Forms	• Pellets	
Processing Method	• Extrusion	• Pipe Extrusion
Physical		
	Nominal Value Unit	Test Method
Density	0.944 g/cm³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	13 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance		
--	> 2000 hr	ASTM D1693B
--	> 5000 hr	ASTM D1693C
Mechanical		
	Nominal Value Unit	Test Method
Tensile Strength ³		ASTM D638
Yield	22.8 MPa	
Break	31.0 MPa	
Tensile Elongation ³ (Break)	> 800 %	ASTM D638
Flexural Modulus - 2% Secant ⁴	827 MPa	ASTM D790
Hydrostatic Design Basis (23°C)	11.0 MPa	ASTM D2837
Impact		
	Nominal Value Unit	Test Method
Notched Izod Impact	320 J/m	ASTM D256
Hardness		
	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	68	ASTM D2240
Thermal		
	Nominal Value Unit	Test Method
Brittleness Temperature	< -118 °C	ASTM D746
Vicat Softening Temperature	126 °C	ASTM D1525
Additional Information		
	Nominal Value Unit	Test Method
Cell Classification	345464A	ASTM D3350
PENT - Notch Tensile	> 100 hr	ASTM F1473