

# INEOS HDPE K44-08-122

High Density Polyethylene Copolymer

INEOS Olefins & Polymers USA

Message:

K44-08-122 is a natural high density polyethylene copolymer designed specifically for extrusion of potable water, industrial, and mining pipe. It is recognized by the Plastic Pipe Institute as having a pipe material designation code of PE 3608 (formerly PE 3408), NSF Standard 14 certification, and complies with ANSI/NSF Standard 61 for health effects requirements. 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 K44-08-123 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 also listed with the Plastic Pipe Institute as a PE 3608 (formerly PE 3408).

General Information			
Features	Copolymer		
	High Density		
Uses	Industrial Applications		
	Mining Applications		
	Piping		
	Potable Water Applications		
Agency Ratings	EC 1907/2006 (REACH)		
	NSF 14		
	NSF 61		
	PPI PE-3608		
RoHS Compliance	Contact Manufacturer		
Appearance	Natural Color		
Forms	Pellets		
Processing Method	Pipe Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.944	g/cm <sup>3</sup>	ASTM D4883
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/21.6 kg	9.0	g/10 min	
190°C/5.0 kg	0.45	g/10 min	
Environmental Stress-Cracking Resistance (100% Igepal, F50)	> 1000	hr	ASTM D1693B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	66		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup>			ASTM D638
Yield	20.7	MPa	
Break	27.6	MPa	

Tensile Elongation <sup>2</sup>			ASTM D638
Yield	12	%	
Break	600	%	
Flexural Modulus - 2% Secant	765	MPa	ASTM D790A
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	320	J/m	ASTM D256
Notched Izod Impact (Area)	31.6	kJ/m <sup>2</sup>	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -118	°C	ASTM D746
Vicat Softening Temperature	126	°C	ASTM D1525
Oxidation Induction Time (210°C)	> 20	min	ASTM D3895
Thermal Stability	127	°C	ASTM D3350
Cell Classification	345464A		ASTM D3350
PENT - Notch Tensile	> 100	hr	ASTM F1473
NOTE			
1.	51 mm/min		
2.	51 mm/min		

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