

# K44-06-122 Polyethylene Copolymer

K44-06-122 is a natural high density polyethylene copolymer designed specifically for extrusion of large diameter pipe for potable water, industrial, and mining applications. When blended with an INEOS-approved black masterbatch, the resulting formulation (*called K44-06-123*) is listed in Plastics Pipe Institute (PPI) TR-4 as a PE 3608 and is certified to ANSI/NSF Standard 14 and CSA Standard B137.1.

## Typical Properties<sup>1</sup>

Resin	Values		ASTM Method
	English Units	SI Units	
Density	—	0.944 g/cc	D4883
Melt Index 190°C/5.0 kg	—	0.45 g/10 min	D1238
Melt Index 190°C/ 21.6 kg	—	6.5 g/10 min	D1238
<b>Compression Molded Sample</b>			
Tensile Strength (2 in/min)			638
@ Yield	3,000 psi	20.7 MPa	
@ Break	4,000 psi	27.6 MPa	
Elongation (2 in/min)			D638
@ Yield	11.2 %	11.2 %	
@ Break	>700 %	>700 %	
Flexural Modulus			D790A
2% Secant Method	110,000 psi	758 MPa	
Notched Izod Impact Strength	6.0 ft-lbf/in	31.6 kJ/m <sup>2</sup>	D256
Hardness			
Shore D	66	66	D2240
Vicat Softening Point	259 F	126 C	D1525
Brittleness Temperature	<-180 F	<-118 C	D746
Environmental Stress Crack Resistance			
Condition B, 100% Igepal, F50 (hrs.)	>1,000	>1,000	D1693
Notched Tensile (PENT)	>100 hrs.	>100 hrs.	F1473
Oxidation Induction Time @ 210°C	>20 min	>20 min	D3895
Thermal Stability	>428 F	>220 C	D3350
Cell Classification, HDB-based (ASTM) <sup>2</sup>	345464C	345464C	D3350

<sup>1</sup> Typical properties will vary and are not to be used for specification purposes.

<sup>2</sup> When blended with INEOS-approved black masterbatch (compound name = 'K44-06-123').