



K44-15-122 Polyethylene Copolymer

K44-15-122 is a natural high density polyethylene copolymer designed specifically for extrusion of pressure pipe and tubing. When blended with an INEOS-approved black masterbatch, the resulting formulation (*called K44-15-123*) is listed in Plastics Pipe Institute (PPI) TR-4 as both a PE 3608 and PE80 material and is certified to ANSI/NSF Standard 14 and CSA Standard B137.1.

Typical Properties¹

Resin	Values		ASTM Method
	English Units	SI Units	
Density	—	0.944 g/cc	D4883
Melt Index 190°C/5.0 kg	—	0.52 g/10 min	D1238
Melt Index 190°C/ 21.6 kg	—	12 g/10 min	D1238
Compression Molded Sample			
Tensile Strength (2 in./min)			D638
@ Yield	3,000 psi	20.7 MPa	
@ Break	5,000 psi	34.5 MPa	
Elongation (2 in./min)			D638
@ Yield	11.2 %	11.2 %	
@ Break	>800%	>800%	
Flexural Modulus			D790A
2% Secant Method	109,000 psi	751 MPa	
Notched Izod Impact Strength	9 ft-lbf/in	45 kJ/m ²	D256
Hardness			D2240
Shore D	67	67	
Vicat Softening Point	250 F	121 C	D1525
Brittleness Temperature	<-180 F	<-118 C	D746
Environmental Stress Crack Resistance			D1693
Condition B, 100% Igepal, F50 (hrs.)	>1,000	>1,000	
Notched Tensile (PENT)	>100 hrs.	>100 hrs.	F1473
Oxidation Induction Time @ 210°C	>35 min	>35 min	D3895
Thermal Stability	428 F	220 C	D3350
Cell Classification, HDB-based (ASTM) ²	345464C	345464C	D3350
Cell Classification, MRS--based (ISO) ²	345465C	345465C	

¹ Typical properties will vary and are not to be used for specification purposes.

² When blended with INEOS-approved black masterbatch (compound name = 'K44-15-123').