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 Properties[1]

	Values		ASTM
Resin	**English Units**	**SI Units**	**Method**
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/m²	**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').**

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