

K38-20-160 Polyethylene Copolymer

K38-20-160 is a yellow, UV-stabilized medium density polyethylene copolymer, containing an organic pigment system, designed specifically for natural gas pipe and fittings. Exhibiting excellent long term strength and slow crack growth resistance, K38-20-160 is listed by the Plastics Pipe Institute (in PPI TR-4) as a PE2708 and is certified to the material requirements of ASTM D2513 and CSA B137.4.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	—	0.939 g/cc	D4883
Melt Index 190 C/ 2.16 kg	—	0.20 g/10 min	D1238
Melt Index 190 C/ 21.6 kg	—	20 g/10 min	D1238
Compression Molded Sample			
Tensile Properties (2 in/min)			D638
@ Yield	2,800 psi	19.3 MPa	
@ Break	4,730 psi	32.5 MPa	
Elongation (2 in/min)			D638
@ Yield	12.1 %	12.1 %	
@ Break	> 800 %	>800 %	
Flexural Modulus			D790A
2% Secant	90,000 psi	620 MPa	
Notched Izod Impact Strength			D256
@ 23 C	6 ft-lbf/in	31.5 kJ/m ²	
Hardness			D2240
Shore D	62	62	
Vicat Softening Point			D1525
	248 F	120 C	
Brittleness Temperature			D746
	<-180 F	<-118 C	
Environmental Stress Crack Resistance			D1693
Condition B, 10% Igepal, F50 (hrs.)	>5,000	>5,000	
Condition C, 100% Igepal, F50 (hrs.)	>5,000	>5,000	
Hydrostatic Design Basis (HDB)			D2837
@ 23 C	1,250 psi	8.6 MPa	
@ 60 C	1,000 psi	6.9 MPa	
Notch Tensile (PENT) (hrs.)			F1473
	>500	>500	
Oxidation Induction Time			D3895
@ 210 C	>20 min	>20 min	
Thermal Stability			D3350
	>464 F	>240 C	
Cell Classification			D3350
	234373E	234375E	

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

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Regulatory Information

The product and uses described herein may require global product registrations and notifications for chemical inventory listings, or for use in food contact or medical devices. For further information, call + 1-800-527-5419.

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The Material Safety Data Sheet for this product contains shipping descriptions and should be consulted, before transportation, as a reference in determining the proper shipping description. If the material shipped by INEOS is altered or modified, different shipping descriptions may apply and the MSDS of the original material should not be used.

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