K46-06-185 Polyethylene Copolymer

K46-06-185 is a natural high molecular weight, high-density copolymer polyethylene developed for automotive fuel tanks. It combines excellent processability and outstanding physical performance, particularly environmental stress crack resistance (ESCR) and impact properties. This grade's high melt strength aids the continuous extrusion production of multi-layer tanks. See the Regulatory Position Statement (RPS) on our web site for more detailed information on regulatory compliance and substances of concern for this grade.

Typical Properties[1]

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	–	0.946 g/cc	**D4883**
Melt Index 190°C/ 21.6 kg	–	4.2 g/10 min	**D1238**
Compression Molded Samples			
Tensile Strength (2 in/min)			**D638**
@ Yield	3,400 psi	23.4 MPa	
@ Break	5,500 psi	37.9 MPa	
Elongation (2 in/min)			**D638**
@ Yield	12%	12 %	
@ Break	>1000%	>1000 %	
Flexural Modulus			**D790A**
Tangent Method	151,000 psi	1040 MPa	
2% Secant Method	117,000 psi	807 MPa	
Notched Izod Impact Strength	13 ft-lbf/in	68 kJ/m^2	**D256**
Hardness (Shore D)	61	61	**D2240**
Vicat Softening Point	255 F	124 C	**D1525**
Brittleness Temperature	<-103 F	<-75 C	**D746**
Heat Deflection Temperature			**D648**
@ 66 psi (455 kPa)	151 F	66 C	
@ 264 psi (1,820 kPa)	113 F	45 C	
Environmental Stress Crack Resistance			**D1693**
Condition B, 100% Igepal F50 (hrs.)	>1,000	>1,000	

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

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