TC46-25 Polyethylene Copolymer

TC46-25 is a natural high density polyethylene copolymer designed specifically for telecommunications ducting to meet or exceed the material requirements in conduit specifications ASTM F2160, UL 651B and NEMA TC-7. TC46-25 balances stiffness, ESCR and molecular weight to provide required toughness and crush strength without compromising processability.

Typical Properties[1]

	Values		ASTM
	English Units	SI Units	Method
Resin			
Density	–	0.948 g/cc	**D4883**
Melt Index 190 C/2.16 kg	–	0.30 g/10 min	**D1238**
Melt Index 190 C/21.6 kg	–	24.0 g/10 min	**D1238**
Compression Molded Samples			
Tensile Strength (2 in/min)			**D638**
@ Yield	3,000 psi	20.7 MPa	
@ Break	4,000 psi	27.6 MPa	
Elongation (2 in/min)			**D638**
@ Yield	8.0%	8.0%	
@ Break	600%	600%	
Flexural Modulus			**D790A**
2% Secant Method	130,000 psi	897 MPa	
Notched Izod Impact Strength	3.6 ft-lbf/in	19.1 kJ/m^2	**D256**
Hardness			**D2240**
Shore D	68	68	
Vicat Softening Point	255 F	124 C	**D1525**
Brittleness Temperature	<-180 F	<-118 C	**D746**
Heat Deflection Temperature			**D648**
@ 66 psi (455 kPa)	156 F	59 C	
Environmental Stress Crack Resistance			**D1693**
Condition B, 100% Igepal, F50 (hrs.)	>1,000	>1,000	
Oxidative Induction Time			**D3895**
@ 210 C	20 min	20 min	
Cell Classification	435430A	435430A	**D3350**

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

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