



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 Properties¹

	English Units	Values SI Units	ASTM 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.