

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

	Values		ASTM Method
	English Units	SI Units	
Density	—	0.948 g/cc	D 4883
Melt Index ²	—	0.30 g/10 min	D 1238
Tensile Strength			
@ Yield (2 in/min)	3400 psi	23.4 MPa	D 638
Elongation			
@ Break (2 in/min)	>800%	>800%	D 638
Flexural Modulus ³	130,000 psi	897 MPa	D 790
Hardness (Shore D)	68	68	D 2240
Deflection Temperature @ 66 psi	156 °F	69 °C	D 648
Brittleness Temperature	<-180 °F	<-118 °C	D 746
OIT @ 200 °C	>20 min	>20 min	D3895 Modified ⁴
Environmental Stress Crack Resistance ⁵	>96 hrs.	>96 hrs.	D 1693
Environmental Stress Crack Resistance ⁶	>192 hrs.	>192 hrs.	D 1693
Cell Classification	335430A	335430A	D 3350

¹ Typical properties will vary within specification limits.

² 190° C/2160 g

³ 2% Secant-Method¹

⁴ Excludes copper mesh

⁵ Condition B, 10% Igepal, F10

⁶ Condition C, 100% Igepal, F20

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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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