

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 651A 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	
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	3,400 psi	23.4 MPa	
@ Break	4,700 psi	32.4 MPa	
Elongation (2 in/min)			D638
@ Yield	10.5%	10.5%	
@ 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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2600 South Shore Boulevard, Ste. 500
League City, TX 77573
Tel: 281-535-6600
www.ineos-op.com

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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.

For additional information, samples, pricing and availability, please contact:

INEOS Olefins & Polymers, USA

Marina View Building
2600 South Shore Boulevard
Suite 500
League City, Texas 77573
Phone: +1 281 535 6600
Fax: +1 281 535 6764
Customer Service: +1 800 527 5419
Tech Service: +1 800 338 0489
www.ineos-op.com

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