

# TUB121B Polyethylene Copolymer

TUB121B is a black high density bimodal polyethylene copolymer designed for extrusion of potable water, natural gas, industrial, and mining pipe. It is listed by the Plastics Pipe Institute (PPI TR-4, as both PE 4710 and PE 100) and is certified to NSF/ANSI Standard 14, NSF/ANSI Standard 61, CSA B137.1 and CSA B137.4.

## Typical Properties<sup>1</sup>

	Values		ASTM Method
	English Units	SI Units	
Density (Natural)	–	0.9485 g/cc	D 4883
Density (Black)	–	0.959 g/cc	D 792
Melt Index 190°C/5.0 kg	–	0.30 g/10 min	D 1238
Melt Index 190°C/ 21.6 kg	–	8.5 g/10 min	D 1238
Tensile Strength			
@ Yield (2 in/min)	3,625 psi	25.0 MPa	D 638
@ Break (2 in/min)	4,600 psi	31.7 MPa	D 638
Elongation			
@ Break (2 in/min)	>600%	>600%	D 638
Flexural Modulus <sup>2</sup>	130,000 psi	896 MPa	D 790
Notched Izod Impact Strength	9 ft-lbf/in	0.49 kJ/m	D 256
Hardness (Shore D)	66	66	D 2240
Brittleness Temperature	<-180 °F	<-118 °C	D 746
Vicat Softening Point	259 °F	126 °C	D 1525
Thermal Stability	428 °F min	220 °C min	D2513/D3350
Hydrostatic Design Basis			
@ 23 °C	1600 psi	11.0 MPa	D 2837
@ 60 °C	1000 psi	6.9 MPa	D 2837
Minimum Required Strength	–	10.0 MPa	ISO 9080
Environmental Stress Crack Resistance <sup>3</sup>	>5000 hrs	>5000 hrs	D 1693
Notch Tensile (PENT)	>10,000 hrs	>10,000 hrs	F 1473
Carbon Black Concentration	2.3%	2.3%	D 1603
Cell Classification	445574C	445576C	D 3350
Oxidative Resistance Classification	CC3	CC3	D3350

Revision: 2/8/2017

<sup>1</sup> Typical properties will vary within specification limits.

<sup>2</sup> 2% Secant-Method 1

<sup>3</sup> Condition C

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Olefins & Polymers USA



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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, please refer to the Regulatory Position Statement (RPS) online at [www.ineos-op.com](http://www.ineos-op.com), or 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:

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