

# B50-35H-176 Polyethylene Copolymer

B50-35H-176 is a high density polyethylene copolymer developed for blow molding. It is recommended for use in applications which require a combination of high top load strength and good environmental stress crack resistance (ESCR). This material contains a fully FDA sanctioned antistat and meets the Food and Drug Administration requirements of 21CFR 177.1520.

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

	Values		ASTM Method
	English Units	SI Units	
Density	—	0.950 g/cc	D 4883
Melt Index <sup>2</sup>	—	0.35 g/10 min	D 1238
Tensile Strength			
@ Yield (2 in/min)	3700 psi	25.5 MPa	D 638
Elongation			
@ Break (2 in/min)	>700%	>700%	D 638
Flexural Modulus <sup>3</sup>	160,000 psi	1103 MPa	D 790
Stiffness in Flexure	87,000 psi	600 MPa	D 747
Notched Izod Impact Strength	3.5 ft-lbf/in	0.19 kJ/m	D 256
Tensile Impact Strength	144 ft-lbf/in <sup>2</sup>	302 kJ/m <sup>2</sup>	D 1822
Hardness (Shore D)	65	65	D 2240
Vicat Softening Point	266 °F	130 °C	D 1525
Brittleness Temperature	<-103 °F	<-75 °C	D 746
Deflection Temperature @66 psi	158 °F	70 °C	D 648

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

<sup>2</sup> 190° C/2160 g

<sup>3</sup> Tangent-Method

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. As conditions of use may vary and are beyond the control of INEOS Olefins & Polymers USA, no representations or warranty, express or implied, are made with respect to the accuracy, reliability, or completeness of this information. This information in no way modifies, amends, enlarges, or creates any specification or warranty, and ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED. INEOS Olefins & Polymers USA shall not be responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices, or from hazards inherent in the nature of the product and/or material, nor for toxicological effects or Industrial Hygiene associated with particular use of any product described herein. This information relates only to the specific product and/or material designated and may not be valid for such product and/or material used in combination with any other product and/or material or in any process, unless otherwise specified. This information shall not be construed as a recommendation for any use that may infringe any patent, trademark, or the like, or as an endorsement of any material, equipment, service, or other item not supplied by INEOS Olefins & Polymers USA.

The name and logo INEOS are trademarks of the INEOS Group and its affiliated companies and businesses.

2600 South Shore Boulevard, Ste. 500  
League City, TX 77573  
Tel: 281-535-6600  
www.ineos-op.com

**INEOS**  
Olefins & Polymers USA



# B50-35H-176 Polyethylene Copolymer

## 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.

## Health and Safety Information

The product described herein may require precautions in handling and use because of toxicity, flammability, or other consideration. The Material Safety Data Sheet (MSDS) contains the available product health and safety information for this material and can be found at [www.ineos-op.com](http://www.ineos-op.com). Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.

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 O&P 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](http://www.ineos-op.com)

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. As conditions of use may vary and are beyond the control of INEOS Olefins & Polymers USA, no representations or warranty, express or implied, are made with respect to the accuracy, reliability, or completeness of the this information. This information in no way modifies, amends, enlarges, or creates any specification or warranty, and ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED. INEOS Olefins & Polymers USA shall not be responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices, or from hazards inherent in the nature of the product and/or material, nor for toxicological effects or Industrial Hygiene associated with particular use of any product described herein. This information relates only to the specific product and/or material designated and may not be valid for such product and/or material used in combination with any other product and/or material or in any process, unless otherwise specified. This information shall not be construed as a recommendation for any use that may infringe any patent, trademark, or the like, or as an endorsement of any material, equipment, service, or other item not supplied by INEOS Olefins & Polymers USA.

The name and logo INEOS are trademarks of the INEOS Group and its affiliated companies and businesses.

2600 South Shore Boulevard, Ste. 500  
League City, TX 77573  
Tel: 281-535-6600  
[www.ineos-op.com](http://www.ineos-op.com)

**INEOS**  
**Olefins & Polymers USA**