

K46-06-185 Polyethylene Copolymer

K46-06-185 is a natural high molecular weight, high-density copolymer polyethylene developed for automotive fuel tanks. It combines excellent processability and outstanding physical performance, particularly environmental stress crack resistance (ESCR) and impact properties. This grade's high melt strength aids the continuous extrusion production of multi-layer tanks.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	—	0.946 g/cc	D4883
Melt Index 190°C/ 21.6 kg	—	4.2 g/10 min	D1238
Compression Molded Samples			
Tensile Strength (2 in/min)			D638
@ Yield	3,400 psi	23.4 MPa	
@ Break	5,500 psi	37.9 MPa	
Elongation (2 in/min)			D638
@ Yield	12 %	12 %	
@ Break	> 800 %	> 800 %	
Flexural Modulus (0.5 in/min)			D790A
Tangent Method	151,000 psi	1040 MPa	
2% Secant Method	117,000 psi	807 MPa	
Notched Izod Impact Strength	13.0 ft-lbf/in	684 kJ/m ²	D256
Hardness (Shore D)	61	61	D2240
Vicat Softening Point	255 F	124 C	D1525
Brittleness Temperature	<-103 F	<-75 C	D746
Heat Deflection Temperature			D648
@ 66 psi (455 kPa)	151 F	66 C	
@ 264 psi (1,820 kPa)	113 F	45 C	
Environmental Stress Crack Resistance			D1693
Condition B, 100% Igepal F50 (hrs.)	>1,000	>1,000	

¹ Properties will vary and are not to be used for specification purposes.

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



K46-06-185 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, 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. 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 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

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