

# ExxonMobil™ HD 4966HL

(Legacy name: ExxonMobil™ HDPE HD 4710.09)

## High Density Polyethylene

### Product Description

HD 4966HL is a high molecular weight and high density polyethylene resin for pressure pipe applications. It has combination of excellent long term hydrostatic strength and outstanding stress crack resistance. When HD 4966HL is used with an ExxonMobil approved carbon black masterbatch correctly, it is listed with Plastic Pipe Institute (PPI) as PE4710 and PE100. The ASTM D3350 Cell Classification for this compound is PE445574C. Please contact ExxonMobil Customer and Application Development Engineer or Sales Manager for PPI listing and NSF certification information.

### General

Availability <sup>1</sup>	▪ North America
Additive	▪ Antiblock: No      ▪ Slip: No      ▪ Thermal Stabilizer: Yes
Applications	▪ Pressure Pipe
Revision Date	▪ 01/04/2024

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density <sup>2</sup>	0.949 g/cm <sup>3</sup>	0.949 g/cm <sup>3</sup>	ASTM D1505
High Load Melt Index <sup>2</sup> (190°C/21.6 kg)	6.6 g/10 min	6.6 g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) <sup>2</sup> (190°C/5.0 kg)	0.18 g/10 min	0.18 g/10 min	ASTM D1238

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Deflection Temperature Under Load (DTUL) at 264psi - Unannealed	111 °F	44 °C	ASTM D648B

Molded Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield	3500 psi	24 MPa	ASTM D638
Tensile Strength at Break	5400 psi	37 MPa	ASTM D638
Flexural Modulus - 2% Secant	140000 psi	980 MPa	ASTM D790B
Hydrostatic Design Basis			ASTM D2837
140°F (60.0°C)	1000 psi	6.89 MPa	
73.0°F (22.8°C)	1600 psi	11.0 MPa	
PENT	1000 hr	1000 hr	ASTM F1473

### Additional Information

- Properties are based on compression molded plaques, ASTM D4703C.
- Tensile Strength at Yield and Elongation at Break tested using ASTM D638 Type IV, 2 in/min.
- Flexural Modulus tested used ASTM D790B, 0.5 in/min.

### Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product is not intended for use in medical applications and should not be used in any such applications.

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

<sup>2</sup> based on HD4966HL; all other properties are from HD4966HL and approved carbon black masterbatch

ExxonMobil™ HD 4966HL  
High Density Polyethylene

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

©2025 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

[exxonmobilchemical.com](http://exxonmobilchemical.com)