



# HDPE 4920N

High Density Polyethylene Pipe Resin

PIPE

## RESIN PROPERTIES <sup>(1)</sup>

	Method	Unit	Typical Value
Melt Flow Index	D1238	g/10 min	–
190°C/5.0 kg	–	–	0.23
190°C/21.6 kg (HDMI)	–	–	8.0
Density	D792	g/cm <sup>3</sup>	0.950
Melting Temperature	D3418	°F	269

## MECHANICAL PROPERTIES <sup>(1) (2)</sup>

	Method	Unit	Typical Value
Tensile Strength at Yield	D638	psi	3,550
Elongation at Break	D638	%	800
2% Flexural Modulus	D790	psi	140,000
Slow Crack Growth-PENT (80 °C, 2.4 MPa)	F1473	hr	> 5,000
Strain Hardening Modulus	ISO 18488	MPa	> 65
Hydrostatic Design Basis <sup>(3)</sup>	D2837	psi	1600 (73 °F) 1000 (140 °F)
Minimum Required Strength	ISO 9080	MPa	10 (20 °C)
Resistance to Rapid Crack Propagation (S4 test, Pc at 32 °F)	ISO 13477	bar	>10

(1) Data developed under laboratory conditions and are not to be used as specification, maxima or minima.

(2) The data listed were determined on compression-molded specimens and may, therefore, vary from specimens taken from molded articles.

(3) When HDPE 4920N is blended with an approved carbon black masterbatch that results in a 2% to 3% level of carbon black in the final pipe, the resulting compound used in the production of pipe is listed in PPI TR-4 as PE4710 and PE100 and will meet or exceed the minimum cell classification of PE445574C or PE445576C per ASTM D3350. Contact Baystar Technical Service for a list of approved concentrates.

## CHARACTERISTICS:

- Multimodal enhanced resin made with Borstar<sup>®</sup>3G Technology
- Excellent processing and melt strength
- PE4710 and PE100 per PPI TR3
- ASTM D3350 cell class 445574C CC3<sup>3</sup> / 445576C CC3<sup>3</sup>
- NSF/ANSI 14
- NSF/ANSI/CAN 61
- NSF/ANSI 358-1

## APPLICATIONS:

- Pressure pipe
- Gas distribution
- Oil & gas gathering
- Industrial piping
- Potable water
- Geothermal
- Sewer
- Sea water outfall
- High voltage cable protection technology

All tests were run under laboratory conditions using American Society for Testing and Materials standards (where applicable) or internal testing procedures. The data is offered in good faith but is intended as a general guide only, and does not necessarily represent results that may be obtained elsewhere. The use of Bayport Polymers LLC ("Baystar") products must be guided solely by the user's own methods for selection of proper formulation to ascertain fitness for any specific application. Baystar disclaims any responsibility for misuse or misapplication of its products and the user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained in the data or the use of the product. The data is provided without reference to any intellectual property issues, as well as federal, state, or local laws which may be encountered in the use thereof. BAYSTAR MAKES NO WARRANTY OF MERCHANTABILITY AND THERE IS NO WARRANTY THAT GOODS SUPPLIED SHALL BE FIT FOR ANY PARTICULAR PURPOSE. Baystar's liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited, at customer option, to replacement of nonconforming goods or refund not to exceed the purchase price plus transportation charges thereon in respect to any material subject to a claim. In addition to any prohibitions of use (if any), Baystar may further prohibit or restrict the sale of its products into certain applications. For further information, please contact your Baystar representative. All products supplied by Baystar are subject to its standard terms and conditions set out in the contract or applicable purchase order. Baystar is a registered trademark of Bayport Polymers LLC. This document may not be distributed, displayed (in any form including a website), copied, altered, or reproduced in whole or in part without Baystar's prior written authorization. To the extent Baystar specifically authorizes distributing, displaying and/or copying 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.

