

## VINPOL™ HD12H44F

### High Density Polyethylene

HLMI: 12

Density: 0.944

**VINPOL HD12H44F** is a high-performance copolymer designed for demanding pressure pipe applications, including potable water, oil and gas, chemical, industrial and mining, and sewer. It has good long-term hoop strength performance, high melt strength and excellent toughness at low temperatures. This product meets all requirements of ASTM D4976-PE235. When blended with the appropriate color concentrate/s, this product has a cell class of 345464C, per ASTM D3350-05, is listed by PPI as a PE3608 material, and meets the requirements of NSF Standard 14/61 for use with potable water. This product qualifies as PE3408 under ASTM D3350-02a and PPI standards, as well as a PE80 material per ISO 9080.

Resin Property*	Typical Value	Units	Test Method
Melt Index, 2.16 kg at 190°C 21.6 kg at 190°C (HLMI)	0.11 12	g/10 min g/10 min	ASTM D-1238 ASTM D-1238
Density (natural/black)	0.944/0.955	g/cm <sup>3</sup>	ASTM D-1505
Tensile Strength, 2 in/min @Yield @Break	3,200 (22) 5,000 (34)	psi (MPa) psi (MPa)	ASTM D-638 ASTM D-638
Elongation, 2 in/min @Yield @Break, Type IV	11.2 >800%	% %	ASTM D-638 ASTM D-638
Flexural Modulus	140,000 (960)	psi (MPa)	ASTM D-790
Brittleness Temperature	<-130 (<-90)	°F (°C)	ASTM D-746
ESCR, Cond. A, B, C, 100% Igepal, F <sub>50</sub>	>1000	hrs	ASTM D-1693
PENT Slow Crack Growth	150	hrs	ASTM F-1473

*\*Physical properties determined based on compression molded specimens prepared in accordance with Procedure C of ASTM D4703, Annex A1.*

Vinmar Polymers America cannot anticipate or control the many different conditions under which this information and/or product may be used. It does not guarantee the applicability or the accuracy of this information or the suitability of its products in any given situation. User of the material should make their own tests to determine the suitability of each such product for their particular purposes. The data listed herein falls within the normal range of product properties, but they should not be used to establish specification limits or used alone as the basis of design.