vinmar polymers america

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^3	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_{50}	>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.*

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