

VINPOL™ HD12H44

High Density Polyethylene

HLMI: 12

Density: 0.944

VINPOL HD12H44 is a high density polyethylene copolymer suitable for extrusion of pressure pipe and tubing. When blended with an appropriate color masterbatch (information available upon request), the resulting formulation is listed in Plastics Pipe Institute (PPI) TR-4 as both a PE 3608 and PE80 material and is certified to NSF/ANSI Standard 14 and CSA Standard B137.1.

Resin Property	Typical Value	Units	Test Method
Melt Index, 5.0 kg at 190°C 21.6 kg at 190°C (HL)	0.52 12	g/10 min g/10 min	ASTM D-1238 ASTM D-1238
Density	0.944	g/cm ³	ASTM D-4883
Tensile Strength, 2 in/min @Yield @Break	3,000 (20.7) 5,000 (34.5)	psi (MPa) psi (MPa)	ASTM D-638 ASTM D-638
Elongation, 2 in/min @Yield @Break	11.2 >800%	% %	ASTM D-638 ASTM D-638
Flexural Modulus, 2% Secant	109,000 (751)	psi (MPa)	ASTM D-790A
Notched Izod Impact Strength	9 (45)	ft-lbf/in (kJ/m ²)	ASTM D-256
Hardness	67	Shore D	ASTM D-2240
Vicat Softening Point	250 (121)	°F (°C)	ASTM D-1525
Brittleness Temperature	<-180 (<-118)	°F (°C)	ASTM D-746
ESCR, Cond. B, 100% Igepal, F ₅₀	>1000	hrs	ASTM D-1693
Notched Tensile (PENT)	>100	hrs	ASTM F-1473
Notched Tensile (PENT)	>35	mins.	ASTM D-3895
Notched Tensile (PENT) Thermal Stability	428 (220)	°F (°C)	ASTM D-3350
Cell Classification, HDB-based (ASTM)*	345464C	-	-
Cell Classification, MRS-based (ISO)*	345464C	-	-

*When blended with a supplier approved color masterbatch (information available upon request)

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