



VinPol™ HD04553

High Density Polyethylene

MI: 4.5

Density: 0.953

VINPOL HD04553 is a high density polyethylene copolymer with a narrow molecular weight distribution. It offers high impact strength, stress crack resistance, good color, processability and low odor. Applications include injection molded, open head pails, shipping containers and drum lids. This product complies with FDA 21 CFR 177.1520 for food contact applications listed under conditions of use A - H in 21 CFR 176.170 (c), Table 2, and can be used in contact with all food types as listed in 21 CFR 176.170(c), Table 1.

Resin Property	Typical Value	Units	Test Method
Melt Index, 190 °C/2.16kg	4.5	g/10 min	ASTM D-1238
Density	0.953	g/cm ³	ASTM D-1505
Bulk Density	37-39	lb/ft ³	ASTM D-1895
Tensile Strength, 23°C, 50 mm/min @ Yield @ Break	4,000 (27.6) 4,000 (27.6)	Type IV specimen psi (MPa) psi (MPa)	ASTM D-638 ASTM D-638
Tensile Elongation, 23°C, 50 mm/min @ Yield @ Break	11 1,700	Type IV specimen % %	ASTM D-638 ASTM D-638
Tensile Modulus, 1% Secant, 50 mm/min, Type I Specimen	106,000 (730)	psi (MPa)	ASTM D-638
Tensile Young's Modulus, 50 mm/min, Type I specimen	130,000 (896)	psi (MPa)	ASTM D-638
Flexural Modulus, 1% Secant, 12.5 mm/min	173,000 (1,190)	psi (MPa)	ASTM D-790
Flexural Modulus, 2% Secant, 12.5 mm/min	142,000 (979)	psi (MPa)	ASTM D-790
Flexural Young's Modulus	187,000 (1,290)	psi (MPa)	ASTM D-790
Notched Izod Impact Strength 23°C	1.2 (64)	ft-lb/in (J/m)	ASTM D-256
Hardness	71	Shore D	ASTM D-2240
Vicat Softening Point	262 (128)	°F (°C)	ASTM D-1525
Low Temperature Brittleness, F ₅₀	<-105 (<-76)	°F (°C)	ASTM D-746
DTUL, 66psi, Unannealed	164 (73)	°F (°C)	ASTM D-648
Melting Temperature	268 (131)	°F (°C)	ASTM D-3418
Crystallization Temperature	241 (116)	°F (°C)	ASTM D-3418

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.

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