

AMERICOLENE® AP50100



High Density Polyethylene High Molecular Weight HDPE (HMW)

Americolene® AP50100 generic prime is a high molecular weight, high density polyethylene copolymer developed for sheet extrusion, thermoforming, and large part blow molding where the finished product demands outstanding physical performance. Suggested Applications: 55 Gallon Shipping Containers Agriculture Chemical Tanks Fuel Containers. This material meets the Food and Drug Administration requirements of 21 CFR 177.1520.

Nominal Physical Properties:

PROPERTY	ASTM TEST METHOD	UNIT	VALUE
Typical Resin Properties for AP50100:			
Melt Index 190 C/21.6 kg	D1238	g/10 min.	10.0
Density	D792	g/cc	0.950
Compression Molded Samples			
Tensile Strength (2 in/min)	D638		
@ Yield		26.1 MPa	3,750 psi
@ Break		36.0 MPa	5,200 psi
Elongation (2 in/min)	D638		
@ Yield		10 %	10 %
@ Break		920 %	920 %
Flexural Modulus	D790A		
Tangent Method		1,220 MPa	177,000 psi
2% Secant		950 MPa	137,000 psi
Notched Izod Impact Strength	D256	40.5 kJ/m ²	7.7 ft-lbf/in
Hardness	D2240		
Shore D		67	67
Vicat Softening Point	D1525	126 C	259 F
Brittleness Temperature	D746	<-75 C	<-103 F
Heat Deflection Temperature D648	D648		
@ 66 psi (455 kPa)		72 C	161 F
Environmental Stress Crack Resistance	D1693		
Condition B, 100% Igepal, F50 (hrs.)		264	264
Oxidation Induction Time	D3895		
@ 210 C		>21 min	>21 min

* MD / TD

Published 02/01/13, Revised 11/10/21

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