

Description

HDPE 8183: Medium molecular weight, Narrow molecular weight distribution, high gloss surface, excellent mold release, ASTM D1248 Type III, Class A, Category 4, Drug Master File listed, USP Class VI approved, FDA compliant ⁽⁴⁾

Applications: Cosmetic bottles, pharmaceutical bottles, industrial product containers, chemical packaging, suitable for food packaging.

Characteristics

	Method	Unit	Typical Value
Rheological Properties⁽¹⁾			
Melt Flow Index	D-1238	g/10 min	
190°C/2.16 kg			0.55
190°C/5.0 kg			1.9
190°C/21.6 kg			19.0
Mechanical Properties⁽¹⁾⁽²⁾			
Tensile Strength @ Yield	D-638, Type IV specimen, 2 in/min	psi	3200
Elongation at Break	D-638, Type IV specimen, 2 in/min	%	>500
Secant Modulus of Elasticity @ 2% strain	D-638, Type IV specimen, 2 in/min	psi	110,000
Flexural Modulus	D-790	psi	140,000
ESCR ⁽³⁾	D1693, B 10% Igepal	hrs	200
Thermal Expansion	D-696	in/in/°F	1 x 10 ⁻⁴
Rockwell hardness	D-785	L Scale	41
Shore Hardness	D-2240	D Scale	62
Thermal Properties⁽¹⁾⁽²⁾			
Melting Point	D-3417	°F	264
Vicat Softening Temperature	D-1525	°F	257
Heat Distortion Temperature	D-648	°F	158
Other Physical Properties			
Density	D-792	g/cm ³	0.945

(1) Data developed under laboratory conditions and are not to be used as specification, maxima or minima.

(2) Film was produced at 1.0 mil with a 2.5 BUR.

(3) Water Vapor Transmission Rate

(4) Complies with FDA 21 CFR § 177.1520, Para. (c) 2.1 and 2.2