



DURAVAR® “FDA Blue” UHMW-PE
Virgin Ultra-High Molecular Weight Polyethylene
Produced Utilizing Advanced Ram Extrusion Technology

PROPERTIES TABLE

Information Provided Below is a Collection of Multiple Sourcing and Believed to be Accurate

TYPICAL	TEST	U/M	DURAVAR® “FDAB”
PHYSICAL PROPERTIES			Virgin
PHYSICAL			
Intrinsic Viscosity (IV)	ASTM D-4020	dl/gm	28 – 30
Density	ASTM D- 792	gm/cm ³	0.935 – 0.945
Hardness	ASTM D-2240	Shore - D	> 67
Water Absorption	ASTM D- 570	%	Nil
MECHANICAL			
Yield Point	ASTM D- 638	Psi	> 3000
Tensile Break	ASTM D- 638	Psi	> 5500
Elongation at Break	ASTM D- 638	%	> 225
Tensile Modulus	ASTM D- 638	Psi	120000
Flexural Modulus	ASTM D- 790	Psi	110000
Izod Impact	ASTM D- 256	(ft-lb/in of notch)	No Break
Tensile Impact	ASTM D-1822	ft-lbs/in ²	> 900
Coefficient of Friction – Static (Polished Steel)	ASTM D-1894	---	.15 – .20
Coefficient of Friction – Dynamic (Polished Steel)	ASTM D-1894	---	.10 – .14
THERMAL			
Coefficient of Linear Thermal Expansion	ASTM D- 696	in/in/°F	7.8 x 10 ⁻⁵
Compressive Modulus	ASTM D- 621	% @ 1000 psi	77750
Compressive Deformation	ASTM D- 621	% @ 1000 psi	6 – 8
Application Temperature – Maximum	ASTM D- 648	°F	< 200
Melting Range	DSC	°F	> 278
ELECTRICAL			
Dielectric Strength (Short time, 1/8 inch thick)	ASTM D- 149	kv/cm	900
Dielectric Constant (@ 1 kHz)	ASTM D- 150	kHz	2.30 – 2.35
Dissipation Factor (@ 1 kHz)	ASTM D- 150	kHz	0.0002
Static Decay Time	FTS - 101C	Seconds	---
Volume Resistivity	ASTM D- 257	ohm-cm	10 ¹⁵
Surface Resistivity	ASTM D- 257	Ohms	10 ¹⁵

This Chart Represents Typical Values for Virgin Color Enhanced UHMW-PE Based on ASTM Testing Standards.

Tech Data-FDA Blue 020117

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