

## Polyethylene Properties

### UHMW Mechanical Properties

PROPERTY	ASTM TEST	UNITS METRIC (US)	.030"	.060"	.125"
Density	D792	gm/cc	0.93	0.93	0.93
Tensile Strength @ Yield	D638	MPa(psi)	23(3300)	20(2964)	22(3227)
Tensile Strength @ Break	D638	MPa(psi)	53(7740)	49(7056)	44(6373)
Elongation @ Break	D638	%	460	463	466
Youngs "E" Modulus	D638	MPa (psi x 105)	725(1.05)	731(1.06)	672(0.97)
Izod Impact Strength (23oC)	D256 (1)	J/m(ft-lb/in notch)			
Izod Impact Strength (-40oC)	D256 (1)	J/m(ft-lb/in notch)			
Hardness Shore "D"	D2240	-	65	65	65
Abrasion Resistance					
Water Absorbtion	D570	%	Nil	Nil	Nil
Relative Solution Viscosity	D4020	dl/gm	2.3 - 3.5	2.3 - 3.5	2.3 - 3.5
COEFFICIENT OF FRICTION					
Static			0.16	0.16	0.16
Dynamic			0.14	0.13	0.14

(1) Izod Impact Strength: Samples have two(15° +/- 1/2°) notches on opposite sides to a depth of 5mm.



ADVANCED THERMOPLASTIC SOLUTIONS

Crown Plastics Co., Inc.  
116 May Drive • Harrison, Ohio 45030 USA  
800-368-0238 • [www.CrownPlastics.com](http://www.CrownPlastics.com)