

TIVAR ECO RECYCLED®

(UHMW) Ultra High Molecular Weight Polyethylene

*The world of plastics at your door.*Phone 905-563-0226 • Toll Free 1-800-642-7797 • Fax 905-563-0228
www.polyzone.com**PHYSICAL PROPERTIES**

Tivar ECO Recycled® maintains an acceptable combination of Tivar properties for less demanding, non-FDA applications. Tivar ECO Recycled® utilizes reground UHMW and may also contain a percentage of virgin grade resin. Many times the recycled UHMW blend will inherit properties above and beyond its standard, due to the many modified grades in its composition.

Property	Method	Unit	Nominal Value*
Density	ASTM D-792	lbs/ft ³	0.94
Tensile strength at yield	ASTM D-638	psi	2800 - 3553
Tensile modulus	ASTM D-638	psi	90,100 - 127,500
Elongation at yield	ASTM D-638	%	n/a
Elongation at break	ASTM D-638	%	50 - 350
Tensile impact	DIN 53448	ft-lbs/in ²	255 - 540
Flexural modulus	ASTM D-790	psi	86,000 - 101,000
Flexural strength	ASTM D-790	psi	n/a
Izod impact	ASTM D-4020	ft-lbs/in ²	19 - 34
IZOD impact notched	ASTM D-2240	ft-lbs/in ²	n/a
Compressive modulus	ASTM D-695	psi	n/a
Compressive deformation	ASTM D-621	% at 1000 psi	6.0 - 8.0
Environmental stress crack resistance	ASTM D-1693	hrs.	n/a
Hardness	ASTM D-2240	Shore D	68
Static friction	ASTM D-1894	Unitless	0.15 - 0.20
Dynamic friction	ASTM D-1894	Unitless	0.10 - 0.14
Impact brittleness temperature	ASTM D-746	°F	n/a
Melting point	ASTM D-3417	°F	280
Coefficient of linear thermal expansion	ASTM D-696	°F-1	0.00011
Max. operating temp.		°F	180
Volume Resistivity	ASTM D-257	Ohm-cm	>10 ¹⁰ - >10 ¹⁵
Surface Resistivity	ASTM D-257	Ohm	>10 ¹⁰ - >10 ¹⁵
Water absorption 24hrs.	ASTM D-570	%	nil

*All values are determined on specimens prepared according to ASTM 1248-84 "Standard Specifications for Polyethylene Plastic Molding and Extrusion Materials". Nominal values should not be interpreted as specifications.

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