

PRODUCT INFOSHEET: Duro-Glide® Enhanced UHMW #321 UltraLube

Duro-Glide® Enhanced #321 UltraLube is a UHMW composition that contains an internal lubricant to ensure continued low frictional properties between moving surfaces. This lubricant is uniformly dispersed throughout the material for continued lubricity throughout the cross section. It also reduces the tendency to “stick-slip” under intermittent dynamic loads.

FDA STATUS

Complies with the compositional and concentration requirements of FDA Chapters 21CFR § 177.1520 and 21CFR § 178.3297 for contact with food

PROPERTIES

Excellent Gliding Properties with Low COF

INDUSTRY / APPLICATIONS

"Dry Run" Conveying Systems / Components | Skate Rink Surfaces

COLOR

Medium Blue

CHARACTERISTICS AND STANDARD VALUES

Physical Properties	Method	SI Unit	SI Value
Density	ASTM D792 ISO 1183-1	g/cc g/cm ³	0.94 0.94
Abrasion (Sand-Slurry-Test rel. to GUR 4120 = 100%)	ISO 15527	% (Average)	100 typical
Notched Impact Strength	ISO 11542-2	mJ/mm ² kJ/m ²	> 70
Tensile Strength, Yield	ASTM D638 ISO 527-2	Psi MPa	> 4000 > 18
Break Elongation	ASTM D638 ISO 527-2	% %	50 - 350 > 100
Coefficient of Friction, ASTM 1894 Metal= Rz 2,5 µ, Pm= 2 N/mm ² , V= 150 mm/min	Static Dynamic	µ µ	~ 0.12 ~ 0.10
Shore-hardness, 3-s-value 6mm plate	ASTM D2240	D	60 - 65
Water Absorption	--	%	< 0.1 (Nil)
Flammability	UL 94	--	HB
Thermal Properties			
Melt Temperature	ASTM 3417 (DSC) ISO 3146 (DSC)	°F °C	275 - 278 135 - 137
Permanent Operation Temp., Max.	--	°F °C	176 80
Coefficient of Linear Expansion	ASTM D696 DIN 53752	73 – 176 °F 23 – 80°C	≈ 1.1x10 ⁻⁴ /°F ≈ 2.0x10 ⁻⁴ /°C
Electrical Properties			
Surface Resistivity	ASTM D257 IEC 93	Ohm Ω	> 10 ¹² > 10 ¹²
Volume Resistivity	ASTM D257 IEC 93	Ohm Ω	> 10 ¹³ > 10 ¹³

Any suggestions or recommendations for the use of our products are based on tests believed to be reliable and on the independent judgment of our technicians. However, it is ultimately up to the Customer/End User to determine whether the product(s) provided by Duro-Glide® are suitable for the intended purpose or application. Duro-Glide® Polymer Sheets makes no warranty of fitness for a particular purpose, nor does it guarantee the results to be obtained. Nothing in this literature is intended as a recommendation to use our products so as to infringe on any patent.