

U510B SPECIFICATION RANGE

Ultra High Molecular Weight Polyethylene

Description:

U510B is an Ultra High Molecular Weight Polyethylene in powder form with an average molecular weight about 5.0-6.0 Million g/mol. The extremely high molecular weight yields several unique properties including high abrasion resistance, impact strength and low coefficient of friction.

Physical Properties:	Method	Unit	Value*
Density	ISO 1183	g/cm ³	0.930 – 0.950
Bulk Density	ISO 60/ ASTM D1895	g/cm ³	0.40 – 0.50
Viscosity Number (VN)	ISO 1628 part 3	ml/g	2400 – 3000
Intrinsic Viscosity [η]	ISO 1628 part 3	ml/g	2100 – 2400
Average Molecular Weight (cal.)	ISO 1628 part 3	g/mol	5.0 – 6.0 x 10 ⁶
Average Particle Size, X50	Laser Scattering (Dry)	μm	130 – 150
> 250 μ	Laser Scattering (Dry)	%	0 – 10
Thermal Properties:	Method	Unit	Value*
Melting Temperature (10°C/min)	ASTM D3418	°C	130 – 135
Vicat Softening point (1Kg)	ISO 306/ASTM D1525	°C	125 – 128
Element Content:	Method	Unit	Value*
Ash Content	ISO 3451	ppm	150 – 200
Aluminium (Al)	ICP ASSAY	ppm	0 – 30
Chlorine (Cl)	ICP ASSAY	ppm	0 – 30
Titanium (Ti)	ICP ASSAY	ppm	0 – 30
Iron (Fe)	ICP ASSAY	ppm	0 – 10
Calcium (Ca)	ICP ASSAY	ppm	0 – 10

*Preliminary values are subjected to change in the interest of product development without notification.

Remark: The values presented on the above are typical laboratory average, not to be construed as specifications and may vary within moderate ranges. The applicability or the accuracy of this information or the suitability of our products cannot be guaranteed because the conditions of use on the part or our uses are beyond our control.