



# LEHIGH VALLEY PLASTICS

We Shape The Industry

## Ultem® 2300 PEI, Polyetherimide, 30% glass reinforced, extruded

MECHANICAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Specific Gravity	1.51	ASTM D792	1.51
Tensile Strength, psi	17000	ASTM D638	117 MPa
Tensile Modulus, psi	800000	ASTM D638	5,516 MPa
Elongation, %	3	ASTM D638	3 %
Flexural Strength, psi	27000	ASTM D790	186 MPa
Flexural Modulus, psi	850000	ASTM D790	5,861 MPa
Compressive Strength, psi	32000	ASTM D695, 10% Def.	221 MPa
Compressive Modulus, psi	625000	ASTM D695	4,309 MPa
Hardness, Rockwell M	114	ASTM D785	114
Hardness, Rockwell R	127	ASTM D785	127
Hardness, Durometer, Shore D Scale	86	ASTM D2240	86
Izod Impact (Notched), ft-lb/in	1	ASTM D256 Type A	53 J/m
Relative Machinability	7	1-10, 1=Easier to Machine	7
THERMAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Coefficient of Thermal Expansion, 10E-4/°F	0.11	ASTM E831 (-40°F to 300°F)	0.20 10 <sup>-4</sup> /K
Deflection Temperature 264 psi, °F	410	ASTM D648	210 °C
Tg-Glass Transition (Amorphous), °F	410	ASTM D3418	210 °C
Continuous Service in Air (Max), °F	340	Long Term	171 °C
Thermal Conductivity, BTU-in/hr-ft <sup>2</sup> -°F	1.56	ASTM F433	0.22 W/m-K
ELECTRICAL PROPERTIES	VALUES	COMMENTS	METRIC VALUES
Dielectric Strength, Short Term, Volts/mil	770	ASTM D149	30 kV/mm
Surface Resistance, Ohm/Square	1E+13	Lower Limit; EOS/ESD S11.11	1E+13 Ohm/Square
Dielectric Constant, 1 MHz	3.7	ASTM D150	3.7
Dissipation Factor, 1 MHz	0.0015	ASTM D150	0.0015
CHEMICAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Water Absorption Immersion, 24 hr., %	0.18	ASTM D570(2)	0.18 %
Water Absorption Immersion Sat, %	0.9	ASTM D570(2)	0.9 %
Acids, Weak (acetic, dilute HCl)	3	Acceptable Service	3
Acids, Strong (conc. HCl or sulfuric)	1	Unacceptable	1
Alkalies, Weak (dilute NaOH)	3	Acceptable Service	3
Alkalies, Strong (conc. NaOH)	1	Unacceptable	1
Hydrocarbons, Aromatic (toluene)	1	Unacceptable	1
Hydrocarbons, Aliphatic (gasoline)	2	Limited Service	2
Ketones, Esters (acetone)	1	Unacceptable	1
Ethers (diethyl ether, THF)	3	Acceptable Service	3
Chlorinated Solvents (methylene chloride)	1	Unacceptable	1
Alcohols (methanol, anti-freeze)	3	Acceptable Service	3
Continuous Sunlight	3	Acceptable Service	3
COMPLIANCE	ENGLISH VALUES	COMMENTS	METRIC VALUES
Flammability, UL94 (5=V-0; 4=V-1; 3=V-2; 1=HB)	5 (V-0)	UL94; 1/8 inch	5
FDA (1=Yes)	0	Not Compliant	0

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