ACETAL												
Physical Properties			Metric				English		Comments			
Specific Gravity			1.41 g/cc			0.0509 lb/in≥		ASTM D792				
Water Absorption			0.20%				0.20%			Immersion, 24hr;		
												ASTM D570(2)
Water Absorption at Saturation		0.90%				0.90%			Immersion; ASTM			
												D570(2)
Mechanical Properties												
Hardness, Rockwell M			88				88			ASTM D785		
Hardness, Rockwell R			120				120			ASTM D785		
Hardness, Shore D			85				85			ASTM D2240		
Tensile Strength, Ultimate		65.5 MPa			9500 psi		ASTM D638					
Elongation at Break			30%				30%			ASTM D638		
Tensile Modulus			2.76 GPa			400 ksi		ASTM D638				
Flexural Modulus			2.76 GPa			400 ksi		ASTM D790				
Flexural Yield Strength		82.7 MPa			12000 psi		ASTM D790					
Compressive Strength			103 MPa			15000 psi		10% Def.; ASTM				
												D695
Compressive Modulus			2.76 GPa			400 ksi		ASTM D695				
Shear Strength				55.2 MPa			8000 psi		ASTM D732			
Coefficient of Friction		0.25				0.25			Dry vs. Steel;			
												QTM55007
K (wear) Factor			403 x 10-8 mm³	in≥-min/ft-lb-hr	QTM 55010							
Limiting Pressure Velocity		0.0946 MPa-m/sec		2700 psi-ft/min	4:1 safety factor;							
QTM 55007												
Izod Impact, Notched			0.534 J/cm			1 ft-lb/in		ASTM D256 Type				
												A
Electrical Properties												
Surface Resistivity per Square		Min 1e+013 ohm			Min 1e+013 ohm		EOS/ESD S11.11					
Dielectric Constant			3.8				3.8			1MHz; ASTM D150		
Dielectric Strength			16.5 kV/mm			420 V/mil		Short Term; ASTM				
												D149
Dissipation Factor			0.005				0.005			1MHz;ASTM D150		
Thermal Properties												
CTE, linear 68∞F			97.2 µm/m-∞C			54 µin/in-∞F		(-40∞F to 300∞F);				
												ASTM E831
Thermal Conductivity			0.231 W/m-K			1.6 BTU-in/hr-ft	ASTM F433					
Melting Point				168 ∞C				335 ∞F			Crystalline, Peak;	
												ASTM D3418
Maximum Service Temperature,	82.2 ∞C			180 ∞F			Long Term					
Deflection Temp	104 ∞C			220 ∞F			ASTM D648					
Flammability, UL94 (Estimated F	HB				HB			1/8 inch				
Qualitative Processing Properties												
Compliance - FDA			Compliant									
Machinability				1				1-10, 1=Easier to Machine				
Service in Alcohols Acceptable												
Service in Aliphatic Hydrocarbo	Acceptable											
Service in Aromatic Hydrocarbo	Acceptable											
Service in Chlorinated Solvents	Limited											
Service in Ethers			Acceptable									
Service in Ketones			Acceptable									
Service in Strong Acids		Unacceptable										
Service in Strong Alkalies		Unacceptable										
Service in Sunlight			Limited									
Service in Weak Acids			Limited									
Service in Weak Alkalies		Acceptable										

All statements, technical information and recommendations contained in this database are presented in good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Gemini Plastics Inc and Thermo Fab Plastics, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customer's responsibility to determine suitabil products in any given application.