

HYDEX® 4101L Lubricated PBT

KEY FEATURES

- Good Chemical Resistance Properties
- High Impact Strength
- A Wear Factor Up to 50% Better Than PET-P
- Very Low Moisture Absorption Rate
- Excellent Machining Qualities
- No Center Line Porosity

DESCRIPTION

HYDEX® 4101 & 4101L (lubricated) is a very stable chemical compound that can withstand high impact without deterioration. It is approved for direct contact with food by the FDA and is ideal for machined parts in food processing equipment.

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Physical	Chemical Designation			PBT	
	Filler			Lubricated	
	Density		g/cm ³	1.36	D792
Mechanical	Tensile Modulus	@ 73 °F	PSI	350,000	D638
	Tensile Strength @ Yld	@ 73 °F	PSI	6,600	D638
	Tensile Strength @ Brk	@ 73 °F	PSI	6,600	D638
	Shear Strength	@ 73 °F	PSI		
	Elongation @ Yld	@ 73 °F	%	30	D638
	Elongation @ Brk	@ 73 °F	%		
	Flexural Modulus	@ 73 °F	PSI	350,000	D790
	Flexural Strength	@ 73 °F	PSI	11,500	D790
	Compressive Modulus	@ 73 °F	PSI	275,000	D695
	Compressive Strength	@ 73 °F, 10% strain	PSI	10,500	D695
	Izod (charpy) Impact Strength	@ 73 °F	ft-lbs/in	0.9	D256
	Rockwell Hardness	@ 73 °F	M (R) Scale		
	Coefficient of Friction	Static		0.08	D3702
	Coefficient of Friction	Dynamic, 40PSI, 50 FPM		0.11	D3702
	Wear (K) Factor		in ³ -min/ft-lbs-hr	38*10 ⁻¹⁰	D3702
Limiting PV		psi-fpm	15,700	D3702	

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Thermal	Vicat Softening Point		°F		
	Melting Temperature		°F		
	Heat Deflection Temperature	@ 66	°F		
	Heat Deflection Temperature	@ 264	°F	195	D648
	Service Temperature	Intermittent	°F		
	Service Temperature	Long Term	°F	221	
	Thermal Expansion (CLTE)		in/in/°F		
	Specific Heat		BTU/lb-°F		
	Thermal Conductivity		BTU-in/hr-ft_-°F		
Other	Moisture Absorption	@ 24 hrs, 73 °F	%	0.07	D570
	Moisture Absorption	@ Saturation, 73 °F	%		
	Flammability	UL 94			
	Food Grade			Y	
	Relative Cost			\$\$\$	

*The data stated above are typical values intended for reference and comparison purposes only.

*The data should not be used as a basis for design specifications or quality control.

*The information is provided as a guide to the best of our knowledge and given without obligation or liability.

*Testing under individual application circumstances is recommended.