

## **Ensinger HYDEX® 4101L Polybutylene Terephthalate (PBT)**

Category: Polymer, Thermoplastic, Polyester, TP, Polybutylene Terephthalate (PBT), Polybutylene Terephthalate (PBT), Impact Grade

## **Material Notes:**

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. HYDEX® 4101 has excellent resistance to typical cleaning chemicals such as chlorine and caustic solutions and has a very low moisture absorption rate, as much as 15 times less than nylon. Good chemical resistance properties High impact strength FDA approved for use in food processing A wear factor up to 50% better than PET-PVery low moisture absorption rate Excellent machining qualities No center line porosity HYDEX® 4101 & 4101L exhibits a broad range of outstanding properties for a variety of applications, especially in the food processing industry. It is ideal for applications such as cams, bearings, gears, food pistons, wear strips, scraper blades, valve bodies and conveyor components. Information Provided by Ensinger Industries, Inc.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Ensinger-HYDEX-4101L-Polybutylene-Terephthalate-PBT.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.36 g/cc	1.36 g/cc	ASTM D792
Water Absorption	0.070 %	0.070 %	ASTM D570
	@Time 86400 sec	@Time 24.0 hour	ASTRIBSTO

Mechanical Properties	Metric	English	Comments	
Tensile Strength, Yield	49.6 MPa	7200 psi	ASTM D638	
Elongation at Break	40 %	40 %	ASTM D638	
Tensile Modulus	2.62 GPa	380 ksi	ASTM D638	
Flexural Modulus	2.69 GPa	390 ksi	ASTM D790	
	@Temperature 22.8 °C	@Temperature 73.0 °F	ACTIVIDISC	
Izod Impact, Notched	0.374 J/cm	0.700 ft-lb/in	ASTM D256	
Coefficient of Friction, Dynamic	0.11	0.11	vs Steel; LNP EPALP-TB001	
Coefficient of Friction, Static	0.080	0.080	Steel; LNP EPALP-TB001	
K Factor (Wear Factor)	38	38	in <sup>5</sup> -min/ft-lbs/hr, at 2000 PV; LNP EPALP-TB001	
Limiting Pressure Velocity	0.550 MPa-m/sec	15700 psi-ft/min	LNP EPALP-TB003, at 100 ft/min	

Thermal Properties	Metric	English	Comments	
Maximum Service Temperature, Air	105 °C	221 °F	UL746B	



Thermal Properties	Metric	English	Comments	
Descriptive Properties		Value	Comments	
3A Compliant		YES		
FDA Complaint		YES		
USDA Compliant		YES		

## **Contact Songhan Plastic Technology Co.,Ltd.**

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