

# HYDEX® 4101

Thermoplastic Polyester

Ensinger Inc.

## Message:

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.

HYDEX® 4101 & 4101L (lubricated) 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.

General Information			
Features	Food Contact Acceptable		
	Good Chemical Resistance		
	Good Stability		
	High Impact Resistance		
	Low Moisture Absorption		
	Machinable		
Uses	Bearings		
	Cams		
	Conveyor Parts		
	Gears		
	Valves/Valve Parts		
	Wear Strip		
Agency Ratings	FDA Food Contact, Unspecified Rating		
	USDA 3A		
	USDA Unspecified Approval		
Forms	Shapes		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.31	g/cm <sup>3</sup>	ASTM D792
Water Absorption (24 hr)	0.070	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2930	MPa	ASTM D638
Tensile Strength (Break)	64.8	MPa	ASTM D638
Tensile Elongation (Break)	50	%	ASTM D638
Flexural Modulus (23°C)	2900	MPa	ASTM D790
Coefficient of Friction			Internal Method
vs. Steel - Dynamic	0.25		
vs. Steel - Static	0.19		

Wear Factor <sup>1</sup>	420	10 <sup>-8</sup> mm <sup>3</sup> /N·m	Internal Method
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	37	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	93.3	°C	ASTM D648
Continuous Use Temperature	105	°C	UL 746B
Additional Information	Nominal Value	Unit	
Limiting Pressure Velocity - @ 100 fpm	6000	psi·fpm	
NOTE			
1.	@2000 PV		

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