HYDEX® 4101L natural - Stock Shapes (rods, plates, tubes)

Chemical Designation
PBT (Polybutylene terephthalate)

Colour
white

Density
1.36 g/cm^3

Fillers
PTFE, lubricant

Main features
- very good chemical resistance
- resistent to cleaning agents
- low moisture absorption
- good impact strength
- high dimensional stability
- good slide and wear properties
- high stiffness

Target Industries
- food processing
- food technology
- food engineering
- semiconductor technology
- automotive industry
- printing machines
- mechanical engineering
- packaging and paper machinery

Mechanical properties	condition	value	unit	test method		comment
Tensile strength		6,600	psi	ASTM D 638		(1) per LNP EPALP-TB001
Modulus of elasticity (tensile test)		350,000	psi	ASTM D 638		(2) per LNP EPALP-TB001 (3) per LNP EPALP-TB001
Elongation at yield (tensile test)		30	%	ASTM D 638		
Flexural strength		11,500	psi	ASTM D 790		
Modulus of elasticity (flexural test)	@ 73 °F	350,000	psi	ASTM D 790		
Compression strength	@ 73 °F, 1% strain	2,800	psi	ASTM D 695		
Compression strength	@ 73 °F, 10% strain	10,500	psi	ASTM D 695		
Compression modulus		275,000	psi	ASTM D 695		
Impact strength (Izod)		0.90	ft-lbs/in	ASTM D 256		
Rockwell hardness	M Scale (R Scale)	75 (115)		ASTM D 785		
Coefficient of friction	Dynamic (vs. steel)	0.11		-	1)	
Coefficient of friction	Static (vs. steel)	0.08		-	2)	
Wear rate	@ 2000 PV	$38*10^{-10}$	psi-fpm	-	3)	

Thermal properties	condition	value	unit	test method		comment
Deflection temperature	@264 psi	195	°F	ASTM D 648		(1) per UL746B
Service temperature	Long Term	221	°F	-	1)	

Other properties	condition	value	unit	test method		comment
Limiting PV	@ 100 fpm	15,700	psi-fpm	-	1)	(1) per LNP EPALP-TB003
Moisture absorption	@ 24 hrs, 73 °F	0.07	%	ASTM D 570		

- Resin specification:
  ASTM D5927-09 TPES0100
  Shapes specification:
  ASTM D6261-10 S-TPES0120 B1424000

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