

HYDEX® 4101 UD Blue - Stock Shapes (rods, plates, tubes)

Chemical Designation

PBT (Polybutylene terephthalate)

Colour

blue

Density

1.59 g/cm³

Fillers

detectable filler

Main features

- resistant to cleaning agents
- food grade blue
- good chemical resistance
- good dimensional stability
- good impact strength
- metal detectable
- x-ray opaque

Target Industries

- food technology
- food processing
- food engineering
- conveyor technology
- packaging and paper machinery

<i>Mechanical properties</i>	<i>condition</i>	<i>value</i>	<i>test method</i>	<i>comment</i>
Tensile strength	@ 73 °F	9,300 psi	ASTM D 638	
Modulus of elasticity (tensile test)	@ 73 °F	550,000 psi	ASTM D 638	
Elongation at break	@ 73 °F	3.53 %	ASTM D 638	
Flexural strength	@ 73 °F	15,250 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	556,150 psi	ASTM D 790	
Compression strength	@ 73 °F, 1% strain	3,200 psi	ASTM D 695	
Compression strength	@ 73 °F, 10% strain	13,760 psi	ASTM D 695	
Compression modulus	@ 73 °F	346,360 psi	ASTM D 695	
Impact strength (Izod)	Notched	0.58 ft-lbs/in	ASTM D 256	
Rockwell hardness	M-Scale	92	ASTM D 785	
<i>Thermal properties</i>	<i>condition</i>	<i>value</i>	<i>test method</i>	<i>comment</i>
Melting temperature		437 °F	-	(1) Injection molded samples
Deflection temperature	@ 264 °F	275 °F	ASTM D 648	(2) Injection molded samples
Deflection temperature	@ 66 psi	393 °F	ASTM D 648	(3) Per UL 746B
Service temperature	Long Term	221 °F	-	(4) Injection molded samples
Thermal expansion (CLTE)		4.05 *10 ⁻⁵ in/in/°F	ASTM D 696	
<i>Other properties</i>	<i>condition</i>	<i>value</i>	<i>test method</i>	<i>comment</i>
Moisture absorption	@24 hr, 73 °F	0.2 %	ASTM D 570	

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