

HYDEX® 4101 UD Blue (TECADUR PBT 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

Mechanical properties	condition	value		test method	comment
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 (tensile test)	@ 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, 10% strain	13,760	psi	ASTM D 695	
Compression strength	@ 73 °F, 1% strain	3,200	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	
Thermal properties	condition	value		test method	comment
Melting temperature		437	°F	-	(1) Injection molded samples
Deflection temperature	@ 66 psi	393	°F	ASTM D 648	(2) Injection molded samples
Deflection temperature	@ 264 °F	275	°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	
Other properties	condition	value		test method	comment
Moisture absorption	@24 hr, 73 °F	0.2	%	ASTM D 570	

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