NYTEF PLASTICS

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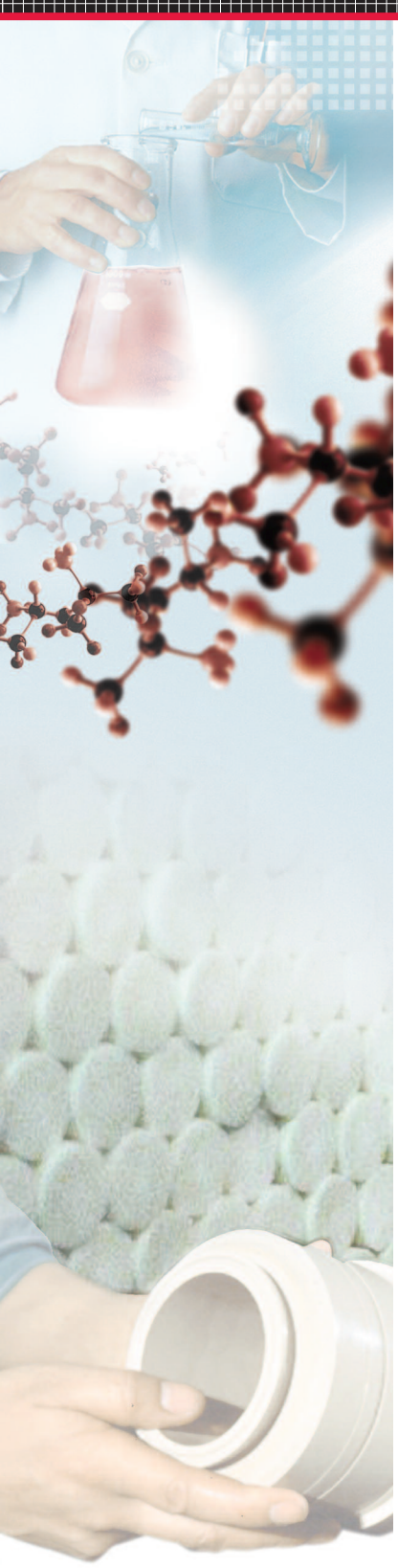


UNIPET® PET Polyester

UNIPET PET from Nytef Plastics is a semi-crystalline polyester terephthalate (PET) polymer that exhibits excellent strength, rigidity, and machinability. Additionally, this material offers dimensional stability and wear resistance that meets or exceeds that of nylon or acetal. Due to it's superior chemical resistance and food contact approvals, UNIPET PET stock shapes are the preferred material for components in food processing applications such as pistons, valves, feed screws, and food product forming and extrusion dies. Additionally, the low moisture absorption and low rate of thermal expansion offered by UNIPET makes it ideal for demanding applications that require close tolerance, precisely machined component parts. UNIPET PET machines easily and is offered by Nytef Plastics in a complete range of extruded rod and heavy gauge plate sizes.

TYPICAL INDUSTRIES

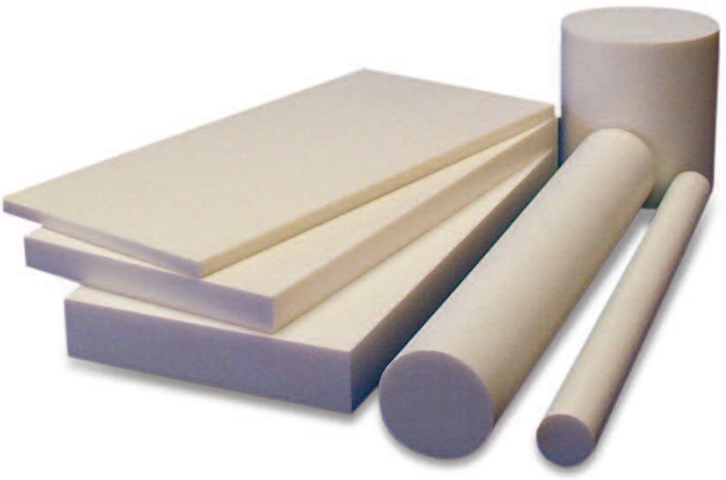
- Food and dairy processing
- Material handling equipment
- Fluid handling
- Electronics manufacturing
- Automotive

APPLICATIONS

- Pistons
- Valves
- Manifolds
- Food product forming dies
- Timing screws
- Scraper blades

UNIPET PET ATTRIBUTES

- 230°F continuous use temperature
- High strength and stiffness
- Superior wear resistance
- Chemically resistant to chlorine and caustic/acidic cleaning agents
- Improved UV resistance compared to acetal or nylon
- Very low moisture absorption
- Easily machined and fabricated
- FDA, USDA, and 3-A Dairy Compliant
- Very high "Value to Cost" ratio



Nytef Plastics, Ltd. is dedicated to supplying our customers with the highest quality thermoplastic stock shapes for machining. We manufacture and stock a full line of thermoplastic materials in a wide variety of rod, plate and tubular bar sizes. In addition, we offer over 35 years of experience in the custom extrusion of application-specific and proprietary resins to meet even the most demanding performance requirements. Nytef Plastics offers full technical support for all products and is certified to ISO 9002 standards for the manufacture of extruded plastics stock shapes.

UNIPET® PET POLYESTER

Property	Test Method	Units	UNIPET
			Unfilled PET
Mechanical			
Specific Gravity	ASTM-D792	---	1.34
Tensile Strength	ASTM-D638	psi	12,200
Tensile Elongation	ASTM-D638	%	25
Tensile Modulus of Elasticity	ASTM-D638	psi	470,000
Flexural Strength	ASTM-D790	psi	17,500
Flexural Modulus of Elasticity	ASTM-D790	psi	490,000
Izod Impact (notched)	ASTM-D256	ft.-lbs./in.	0.6
Rockwell Hardness	ASTM-D785	R scale	R125
Thermal			
Coef. of Linear Thermal Expansion	ASTM-D696	in./in./°F	3.6×10^{-5}
Continuous Use Temp.	Nytef Std.	°F	230
Heat Deflection Temp. @ 264 psi	ASTM-D648	°F	190
Melting Point	ASTM-D3418	°F	491
Electrical			
Dielectric Strength-Short Term	ASTM-D149	volts/mil	450
Dielectric Constant @ 60 Hz	ASTM-D150		3.4
Dissipation Factor @ 60 Hz	ASTM-D150		0.002
Volume Resistivity	ASTM-D257	ohm-cm	$>10^{14}$
Miscellaneous			
Water Absorption/24 hrs.	ASTM-D570	% weight	0.1
Water Absorption @ Saturation	ASTM-D570	% weight	0.9
Flammability	UL 94		HB
Color			White
Agency Compliance			
FDA			Yes
USDA			Yes
3-A Dairy Sanitary Standards			Yes

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