

SUSTADUR PET & SUSTADUR PBT

SUSTADUR thermoplastic polyester products are semi-crystalline materials that offer good wear resistance along with a combination of excellent thermal stability and chemical resistance. **SUSTADUR PET** (polyethylene terephthalate) offers higher strength and stiffness over acetal, nylon and PBT. This product has outstanding dimensional stability by virtue of low moisture absorption and a low coefficient of thermal expansion. **SUSTADUR PBT** (polybutylene terephthalate) offers similar mechanical properties to acetal, however a higher maximum continuous operating temperature and improved chemical resistance makes it an excellent choice in food processing applications that require chemical or steam sanitizing.

Product Features:

SUSTADUR PET	SUSTADUR PBT
Continuous use temperature of 230°F	Continuous use temperature of 230°F
High strength and stiffness	Optimum toughness
Outstanding dimensional stability	Better for intricate machining
Low moisture absorption	Higher impact strength than PET

Typical Properties of Stock Shapes

Property	Units	Test Method	Value PET	Value PBT
Specific Gravity	-	ASTM D 792	1.41	1.31
Water Absorption 24 hrs	%	ASTM D 570	0.07	0.25
Water Absorption Saturation	%	ASTM D 570	0.7	0.4
Flammability	-	UL 94	HB	HB
Tensile Strength	psi	ASTM D 638	12,000	8,000
Elongation	%	ASTM D 638	30	30
Modulus	psi	ASTM D 638	460,000	425,000
Flexural Strength	psi	ASTM D 790	17,000	14,000
Modulus	psi	ASTM D 790	480,000	425,000
Notched Izod	ft-lb/in	ASTM D 256	0.5	0.6
Rockwell Hardness	-	ASTM D 785	M93	M72
HDT @ 264 psi	°F	ASTM D 648	240	175
Coefficient Linear thermal expansion	in/in/°F	ASTM D 696	3.3 x 10 ⁻⁵	4.0 x 10 ⁻⁵
Dielectric Strength	V / mil	ASTM D 149	385	400
Volume Resistivity	ohm-cm	ASTM D 257	10 ⁸	>10 ¹³
Dielectric Constant	-	ASTM D 150	3.1	3

Typical Applications

- ⇒ Parts for food processing machinery
- ⇒ Valves
- ⇒ Manifolds
- ⇒ Bushings and bearings
- ⇒ Pistons

Certifications

- ⇒ ASTM D6261
- ⇒ FDA compliant



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