ENSINGER-VEKTON
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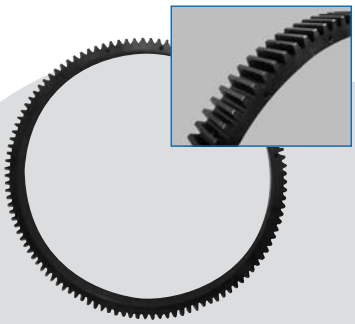
INDUSTRY PROFILE

TECAST VEKTON™

(Paper and Pulp Industries)

TECAST VEKTON cast nylon is a versatile, economical material that is ideal for use in paper and pulp mill equipment. In both original equipment and maintenance operations, TECAST VEKTON frequently replaces steel, cast iron, bronze, aluminum, wood, rubber or laminated phenolics. For decades, TECAST VEKTON cast nylon has been used to manufacture dryer gears and bearings that offer more advantages than other materials used in this industry.

For example, when TECAST VEKTON gears are used in conjunction with metal gears, they help lower noise and reduce the wear that occurs when two metal gears are used. The TECAST VEKTON gear also acts as a "sacrificial part" that can be replaced at significantly less expense than a metal gear when the system becomes jammed. TECAST VEKTON bearings also offer advantages over the competition. With outstanding lubricating and impact resistant characteristics, TECAST VEKTON bearings significantly outperform bronze and babbitt bearings used in paper mill line shafts, especially when subjected to periods of inadequate lubrication.



54˝ 6XAU Gear Ring

- **Longer Life–**
  TECAST VEKTON parts typically last 2 to 3 times longer than conventional materials.
- **Outstanding Physical Properties–**
  TECAST VEKTON combines high tensile and impact strength, corrosion and abrasion resistance, and "self-lubrication".
- **Noise Reduction–**
  TECAST VEKTON parts provide a significant decrease in noise level in comparison to metal parts.
- **Low Cost–**
  TECAST VEKTON has a lower initial cost than steel and offers a dramatic decrease in maintenance cost when used for replacement parts.
- **Large Part Capability–**
  Parts are available up to 90˝ in diameter and weights up to 1,200 pounds.

TECAST VEKTON cast nylon parts are typically being used in bushings, bearings, chain wear plates, pinion gears, jack ladder, and pivot bearings, rope pulleys, and rollers for the paper and pulp industries.

TYPICAL PROPERTY VALUES

	PROPERTIES	ASTM Test Method	Units	Tecast Vekton® 6PA	Tecast Vekton® 6XAU	Tecast Vekton® 6PAM/6PAG	Tecast Vekton® 6PAL
PHYSICAL	Density	D792	lbs/in^3	.0416-.0419	.0416-.0419	.0416-.0423	.0412-.0416
	Specific Gravity	D792	g/cc	1.15 - 1.16	1.15 - 1.16	1.15 - 1.17	1.14 - 1.15
	Water Absorption, @ 24 hours, 73°F	D570	%	1. 2	1. 2	1. 2	.75
	@ Saturation, 73°F	D570	%	–	–	–	–
MECHANICAL	Tensile Strength @ Yield, 73°F	D638	psi	10,000	11,000	11,000	8,800
	Tensile Modulus	D639	psi	350,000	350,000	350,000	350,000
	Elongation @ Break, 73°F	D638	%	25	20	20	25
	Flexural Strength, 73°F	D790	psi	12,500	12,500	12,500	12,500
	Flexural Modulus, 73°F	D790	psi	350,000	350,000	350,000	325,000
	Compressive Strength	D695	psi	–	–	–	–
	Izod Impact Strength, 73°F	D256	ft-lbs/in	.6	.7	.6	1. 2
	Rockwell Hardness, 73°F	D785	R Scale	115	115	115	100
	Shore Hardness	–	D Scale	–	–	–	–
	Wear Factor Against Steel, 40 psi, 50 fpm	D3702	$\frac{in^3}{hr} \times \frac{1}{PV}$	200×10^{-10}	–	–	–
	Static Coefficient of Friction	D3702	–	–	–	–	–
	Dynamic Coefficient of Friction, 40 psi, 50 fpm	D3702	–	.26	–	–	–
ELECTRICAL	Heat Deflection Temperature @ 66 psi	D648	°F	370	370	370	–
	@ 264 psi	D648	°F	200	200	200	–
	Coefficient of Linear Thermal Expansion	D696	in/in/°F	4.0×10^{-5}	4.0×10^{-5}	4.0×10^{-5}	4.0×10^{-5}
	Maximum Servicing Temperature, Intermittent	–	°F	300	350	300	330
	Long Term	UL746B	°F	200	260	200	200
	Specific Heat	–	BTU/lb-°F	.40	–	–	–
	Thermal Conductivity	–	–	1.67	–	–	–
	Vicat Softening Point	–	°F	–	–	–	–
	Melting Point	D2133	°F	428	428	428	428
	Flammability	UL94	–	HB	–	–	–

Primary Specification (Typical)
6PA: L-P-410a
6PAM: L-P-410a Wear Resistant

Shapes Specification (Typical)
6PA: ASTM-D-5989 S-PA0211
6PAL: ASTM-D-5989 S-PA0251
6PAM: ASTM-D-5989 S-PA0221

Custom parts are available in sizes up to 90˝ in diameter and weights up to 1,200 pounds.

IAPD INTERNATIONAL ASSOCIATION OF PLASTICS DISTRIBUTORS

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