



# TECAST™ 12

TECAST™12 Offers high load carrying capacity, excellent creep resistance and very high resistance to abrasion and wear. These exceptional qualities allow

TECAST™12 to replace metal elements and components in heavy-duty applications such as construction machinery, off-shore equipment, conveyors

and automotive engineering. TECAST™12 can easily be cast around metal hubs and other components.

- **High load carrying capability under static and dynamic conditions**
- **High impact strength and stability in cold temperatures to -112°F**
- **Low specific gravity**
- **Very high resistance to abrasion and wear without additives**
- **Excellent creep resistance (stress relaxation)**
- **Good resistance to hydrolysis and chemicals**
- **Excellent dimensional stability due to extremely low internal stress and low moisture absorption**
- **Low rolling resistance; good concentric and axial running accuracy**
- **Available in a variety of metric sizes and shapes**

*TECAST™ 12 typical applications include conveyor rollers; drive rollers; gear wheels; mixers, mixing propellers; pump guide, inflow and sealing rings; buffering elements; pulley blocks; cam plates; spur wheels; spindle nuts and many others where strength and stability are required.*

# TYPICAL PROPERTY VALUES

	PROPERTIES	ASTM Test Method	Units	TECAST™ 12	TECAST VEKTON™ 6PA
<b>PHYSICAL</b>	Specific Gravity	D792	gm/cm <sup>3</sup>	1.02	1.15
	Water Absorption, @24 hours, 73°F	D570	%	0.4-0.5	0.6-1.2
	Water Absorption, Saturation	D570	%	1.4	6-8
<b>MECHANICAL</b>	Tensile Strength @ Break, 73°F	D638	psi	8,000-9,000	11,000-14,000
	Tensile Modulus, 73°F	D638	psi	304,000	350,000-450,000
	Elongation @ Break, 73°F	D638	%	16-18	20-40
	Flexural Strength, 73°F	D790	psi	10,500-12,500	12,500-14,500
	Flexural Modulus, 73°F	D790	psi	304,000	350,000-450,000
	Izod Impact Strength, Notched, 73°F	D256	ft-lbs/in	1.1-1.2	0.6-0.9
	Rockwell Hardness	D785	"R" Scale	108	115-120
	Compressive Strength (1% offset)	D695	psi	6,000-7,000	11,000-12,000
<b>THERMAL</b>	Maximum Temperature, Long Term	-	°F	240	200
	Short Term	-	°F	300	300
<b>ELECTRICAL</b>	Dielectric Strength	D149	V/mil	-	500-600
	Dielectric Constant, @ 60 Hz	D150	-	3.5	3.7
	Volume Resistivity	D257	ohm-cm	10 <sup>14</sup>	10 <sup>14</sup>
	Surface resistivity	D257	-	10 <sup>13</sup>	-

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## MATERIAL AVAILABILITY

**Rods:** Diameters:

**Plates:**

## Primary Specification (Resin) (Typical)

*Profiles, tubes, and special sizes are custom-produced on request.*



**ENSINGER-HYDE**

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