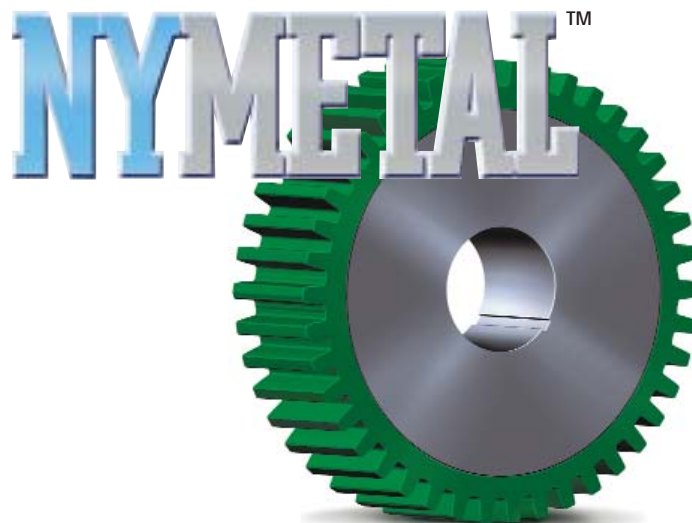


PROPERTIES

PROPERTY	UNITS	TEST METHODS	NYCAST® 6PA NYCAST® 6PA-BLUE NYCAST® 6PA-MoS ₂	NYLOIL® NYLOIL-FG® NYLOIL-MDX®	NYCAST® CP	NYCAST® 6MPB NYCAST® 6MPY	NYCAST® XHA
Specific Gravity	-	ASTM D792	1.15 - 1.17	1.14 - 1.15	1.10 - 1.13	1.14 - 1.16	1.15 - 1.17
Tensile Strength	psi	ASTM D638	10,000-13,500	9,500 - 11,000	8,700 - 11,500	9,700 - 10,800	12,000 - 13,500
Tensile Elongation	%	ASTM D638	20 - 55	35 - 55	25 - 80	25 - 35	20 - 30
Tensile Modulus	psi	ASTM D638	400,000 - 550,000	375,000 - 475,000	240,000 - 330,000	375,000 - 440,000	485,000 - 550,000
Compressive Strength (@ 10% offset)	psi	ASTM D695	13,500 - 16,000	12,000 - 14,000	—	12,500 - 15,100	15,500 - 18,000
Compressive Modulus	psi	ASTM D695	325,000 - 400,000	275,000 - 375,000	—	280,000 - 345,000	300,000 - 350,000
Flexural Strength	psi	ASTM D790	15,500 - 17,500	14,000 - 16,000	15,000 - 20,000	12,000 - 13,000	15,000 - 17,500
Flexural Modulus	psi	ASTM D790	420,000 - 500,000	375,000 - 475,000	285,000 - 385,000	330,000 - 350,000	420 - 500,000
Shear Strength	psi	ASTM D732	10,000 - 11,000	8,000 - 9,000	7,600 - 9,000	10,000 - 11,000	10,000 - 11,000
Notched Izod Impact	ft.lbs/in.	ASTM D256	0.7 - 0.9	1.4 - 1.8	0.9 - 1.4	0.82 - 0.91	0.7 - 0.9
Hardness, Rockwell	R	ASTM D785	115 - 125	100 - 115	100 - 115	110 - 115	115 - 125
Hardness, Shore D	D	ASTM D2240	78 - 83	74 - 80	75 - 81	76 - 78	78 - 83
Melting Point	deg F	ASTM D789	450 ±10	450 ±10	410 ±10	450 ±10	450 ±10
Coef. of Linear Thermal Exp.	in./in./deg F	ASTM D696	5.0 X 10 ⁻⁵	5.0 X 10 ⁻⁵	4-4.5 X 10 ⁻⁵	5.0 X 10 ⁻⁵	5.0 X 10 ⁻⁵
Deformation Under Load	%	ASTM D621	0.5 - 2.5	0.7 - 0.8	Dependent on Grade	1.0 - 2.0	0.5 - 2.5
Deflection Temp. 264 psi.	deg F	ASTM D648	200 - 400	200 - 400	200 - 400	200 - 400	200 - 430
66 psi.	deg F	ASTM D648	400 - 430	400 - 430	400 - 430	400 - 430	400 - 430
Continuous Service Temp.	deg F	—	230	230	210	230	250
Intermittent Service Temp.	deg F	—	330	330	300	330	330
Coefficient of Friction Dynamic (1)			0.22	0.12	N/A	N/A	0.22
Water Absorption 24 Hours	%	ASTM D570	0.5 - 0.6	0.5 - 0.6	0.5 - 0.6	0.5 - 0.6	0.5 - 0.6
Saturation	%	ASTM D570	5.0 - 6.0	2.0 - 2.5	4.0 - 5.0	5.0 - 6.0	5.0 - 6.0
Dielectric Strength (Short Time)	v/mil.	ASTM D149	500-600	500-600	500-600	500-600	—
Dielectric Constant @ 60 cycles	—	ASTM D150	3.7	3.7	3.7	3.7	—
@ 1,000 cycles			3.7	3.7	3.7	3.7	—
@ 100,000 cycles			3.7	3.7	3.7	3.7	—



4300 Hamann Parkway, Willoughby, Ohio 44094
 440 269-2300 • 800 543-3619
www.castnylon.com
nearnetsshapes@castnylon.com

