Nycast CP

Polyamide 6

Cast Nylons Ltd.

Message:

Nycast®CP being highly resilient, with higher tensile elongation and impact strength than standard grades has proven itself in many applications requiring an extra degree of toughness. A copolymer of caprolactam and laurinlactam, NYCAST CP was originally developed specifically for use in ball valve seats in the oil and gas industry. This durable material provides an economical, high performance bridge between NYCAST 6 and NYCAST 12 formulations.
NYCAST CP with its higher elongation, superior dimensional stability and safety yellow color has found itself a superior choice for wobbler box inserts and coupling boxes in the cold rolling steel industry and mandrels covers in paper tube manufacturing plants.

General Information			
Features	Copolymer		
	Durable		
	Good Dimensional Stability		
	Good Toughness		
	High Elongation		
	High Impact Resistance		
	High Tensile Strength		
	Resilient		
Uses	Conveyor Parts		
	Gears		
	Housings		
	Rollers		
	Seals		
	Valves/Valve Parts		
Appearance	Yellow		
Forms	Preformed Parts		
Processing Method	Casting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.10 to 1.13	g/cm³	ASTM D792
Water Absorption			ASTM D570
24 hr	0.50 to 0.60	%	
Saturation	4.0 to 5.0	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	100 to 115		ASTM D785
Durometer Hardness (Shore D)	75 to 81		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1650 to 2280	MPa	ASTM D638
Tensile Strength	60.0 to 79.3	MPa	ASTM D638

Tensile Elongation (Break)	25 to 80	%	ASTM D638
Flexural Modulus	1970 to 2650	MPa	ASTM D790
Flexural Strength	103 to 138	MPa	ASTM D790
Compressive Modulus	1380 to 2070	MPa	ASTM D695
Compressive Strength	75.8 to 86.2	MPa	ASTM D695
Shear Strength	52.4 to 62.1	MPa	ASTM D732
Coefficient of Friction (vs. Itself - Dynamic)	0.22		ASTM D1894
Deformation Under Load	0.400 to 0.700	%	ASTM D621
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	48 to 75	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	204 to 221	°C	
1.8 MPa, Unannealed	93.3 to 204	°C	
Continuous Use Temperature	98.9	°C	ASTM D794
Melting Temperature	204 to 216	°C	
CLTE - Flow	9.0E-5	cm/cm/°C	ASTM D696
Service Temperature - Intermittent	149	°C	
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	20 to 24	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.70		
1 kHz	3.70		
100 kHz	3.70		

Recommended distributors for this material

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