Nycast 6MP

Polyamide 6

Cast Nylons Ltd.

Message:

Designed to address the problems associated with impact loads, NYCAST 6MP formulations provide performance advantages in applications that require improved impact properties over standard grades. NYCAST 6MP cushion pads protect the hammer from metal-to-metal damage in pile drivers and provide many performance advantages in certain gear, die block, valve seat and other applications.
This formulation also provides superior performance in extreme cold temperature applications, where standard grades are prone to impact failure.

General Information			
Features	Low Temperature Resistant Ultra High Impact Resistance		
Uses	Automotive Applications Bearings Bushings Construction Applications Marine Applications Mining Applications Seals Shock Absorbing Pads Textile Applications Wear Strip		
Appearance	Blue		
Forms	Preformed Parts		
Processing Method	Casting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.14 to 1.16	g/cm³	ASTM D792
Water Absorption			ASTM D570
24 hr	0.50 to 0.60	%	
Saturation	5.0 to 6.0	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	110 to 115		ASTM D785
Durometer Hardness (Shore D)	76 to 78		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2590 to 3030	MPa	ASTM D638
Tensile Strength	66.9 to 74.5	MPa	ASTM D638
Tensile Elongation (Break)	25 to 35	%	ASTM D638
Flexural Modulus	2280 to 2410	MPa	ASTM D790
Flexural Strength	82.7 to 89.6	MPa	ASTM D790

Compressive Modulus	1930 to 2380	MPa	ASTM D695
Compressive Strength	86.2 to 104	MPa	ASTM D695
Shear Strength	68.9 to 75.8	MPa	ASTM D732
Coefficient of Friction (vs. Itself - Dynamic)	0.22		ASTM D1894
Deformation Under Load	1.00 to 2.00	%	ASTM D621
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	44 to 49	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	110	°C	ASTM D794
Melting Temperature	227 to 238	°C	
CLTE - Flow	7.2E-5 to 8.1E-5	cm/cm/°C	ASTM D696
Service Temperature - Intermittent	166	°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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