

Plastic Balls

PROPERTIES	ACETAL	POLYAMIDE	POLYETHYLENE LOW DENSITY	POLYETHYLENE HIGH DENSITY	PTFE FLUOROCARSON
PHYSICAL					
SPECIFIC GRAVITY	1.42	1.13-1.15	0.910-0.925	0.941-0.965	2.14-2.20
WATER ABSORPTION 24HR (1/8 IN: THICK SPECIMEN)% SATURATION	0.25-0.40 500 (90ML)	1.0-1.3 8.5	<0.01	<0.01	<0.01
DIELECTRIC STRENGTH (1/8 IN: THICK SPECIMEN) SHORT TIME V./MIL	500 (90ML)	600 ^B	450-1000	450-500	480
MECHANICAL					
TENSILE STRENGTH AT BREAK,PSI		12.000 ^B 11.000 ^C	600-2300	3100-5500	2000-5000
ELONGATION AT BREAK,%	25-75	60 ^B , 300 ^C	90-800	20-130	200-400
TENSILE YIELD STRENGTH,PSI	95000-12.000	8000 ^B , 6500 ^C	800-1200	3000-4000	
COMPRESSIVE STRENGTH (RUPTURE OR YIELD) PSI	18.000@10%	15.000 ^B (YLD.)		2700-3600	1700
FLEXURAL STRENGTH (RUPTURE OR YIELD) PSI	14.000	17.000 ^B , 6100 ^C			
TENSILE MODULUS 10 ³ PSI	520		14-38	60-180	58-80
COPRESSIVE MODULUS 10 ³ PSI	670				60
FLEXURAL MODULUS 10 ³ PSI 73°F 200°F 250°F 300°F	380-430	420 ^B , 185 ^C	8-60	100-260	80
IZOD IMPACT. FT-LB/.I.OF NOTCH (1/8-IN.THICK SPECIMEN)	1.3-2.3	0.8-1.0 ^B , 2.1 ^C	NO BREAK	0.5-20	3
HARDNESS ROCKWELL SHORE	M94	R120 ^B M83 ^B	D40-51	D60-70	D-50-55
THERMAL					
COEF. OF LINER THERMAL EXPANSION 10 ⁶ IN./IN°C	100	80	100-2220	110-130	
DEFLECTION TEMPERATURE FLEXURAL LOAD. °F	264PSI	167 ^B	90-105	110-130	
	66PSI	338	474 ^B	100-121	140-190
250					
THERMAL CONDUCTIVITY 10-CAL.-CM/SEC-CM ² -°C	5.5	5.8	8	11-12	6.0

GRADE	SPHERICITY		TOLERANCE		SURFACE
	INCHES	MM	INCHES	MM	
0*	0.0005	0.0125	±0.0005	0.0125	POLISHED
I	0.0005	0.0125	±0.001	0.025	POLISHED
II	0.001	0.025	±0.002	0.050	UNPOLISHED
III	0.005	0.125	±0.005	0.125	UNPOLISHED

*Only available in certain materials