

TYNEC® – Polycarbonate

STANDARD GRADES

TYPICAL PROPERTIES*	UNIT	ASTM Test	General Purpose		FR	Impact Modified	Structural Foam	Glass Fiber Reinforced		
								10%	20%	30%
			600	1600	V1200					
			1100	2200	V1700	C1280	CFV50	CG100	CG200	CG300
GENERAL										
Specific Gravity		D792	1.20	1.20	1.21	1.19				
Water Absorption; 24							1.00	1.27	1.35	1.44
hrs	%	D570	0.15	0.15	0.15	0.15	0.14	0.13	0.12	0.11
Equilibrium	%	D570	0.35	0.35	0.35	0.35	0.33	0.32	0.29	0.29
Mold Shrinkage	10 ³ in/in	D955	5-7	5-7	5-7	5-7	4-7	3-5	2-4	1-3
Melt Flow	g/10 min	D1238	6.0	16.0	12.0	12.0	8.0	8.0	6.0	5.0
			11.0	22.0	17.0					



Mechanical										
Tensile Strength at Break	lb/in ²	D638	10,500	10,000	10,000	9,000	6,500	10,000	16,000	18,000
Tensile Modulus	10 ³ lb/in ²	D638	350	350	350	340	320	560	940	1300
Elongation @ Yield	%	D638	5.5	5.5	5.0	6.0	-	-	-	-
@ Break	%	D638	115	115	110	115	5.0	8.0	3.0	2.0
Flexural Strength	lb/in ²	D790	13,000	12,000	13,000	12,000	11,000	14,900	19,000	23,000
Flexural Modulus	10 ³ lb/in ²	D790	340	340	340	320	360	500	840	1200
Izod Impact (¼")	ft-lbs/in	D256	16	13	15	15	-	2.5	2.0	3.0
-notched	ft-lbs/in	D256	NB	NB	NB	NB	-	35	20	22
-un-notched										
Electrical										
Dielectric Strength										
air/.125	V/mil	D149	400	400	400	400	400	400	400	400
Volumn Resisitivity	ohm-cm	D257	1.0E+1	1.0E+16	1.0E+16	1.0E+16	1.0E+16	1.0E+16	1.0E+1	1.0E+1
Dielectric Constant @	-	D150	6	2.9	2.9	3.1	2.7	3.0	6	6
1Mhz	-	D150	2.9	0.01	0.01	0.01	0.02	0.01	3.2	3.2
Dissipation Factor			0.01						0.01	0.01
@1Mhz										
Thermal										
Deflection Temp										
@ 264psi	*F	D648	265	260	265	260	260	285	290	300
@66 psi	*F	D648	275	270	275	270	270	295	294	306
Flammability**										
UL94 Class, 1/16"	-	-	V2	V2	V2	V2	V2	V2	V2	V2
UL94 Class, 1/8"	-	-	V2	V2	V0	V2	V0	V1	V1	V1

*Data measured on natural color specimens.

