

GENERAL PURPOSE GRADE

				High Impact 100-322	Super High Impact 100-X01	High Flow 250-X10	High Rigidity 500-322	Medium Impact 700-314	High Flow Medium Impact 700-X01
Typical Properties	Test Method	Test Conditions	SI Unit	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value	Typical Value
Physical									
Specific Gravity	ASTM D792		—	1.04	1.04	1.05	1.05	1.05	1.05
Water Absorption	ASTM D570	23°C X 24 hours	%	0.3	0.3	0.3	0.3	0.3	0.3
Mould Shrinkage	ASTM D955		%	0.4 ~ 0.6	0.4 ~ 0.6	0.4 ~ 0.6	0.4 ~ 0.6	0.4 ~ 0.6	0.4 ~ 0.6
Rheological									
Melt Flow Rate	ISO 1133	220°C / 10 kg	g/10 min	15	15	44	20	25	40
Mechanical									
Tensile stress at yield	ASTM D638	at 5 mm/min	MPa	48	41	49	55	49	46
Tensile strain at break	ASTM D638	at 5 mm/min	%	48	40	15	37	35	15
Flexural Strength	ASTM D790	at 3 mm/min	MPa	74	63	77	82	76	73
Flexural Modulus	ASTM D790	at 3 mm/min	MPa	2280	1960	2480	2600	2450	2300
Rockwell Hardness	ASTM D785	R scale	—	112	105	115	118	116	114
Impact									
Izod Impact Strength, notched	ASTM D256	12.7 x 62.5 x 12.7mm (23°C)	J/m	226	294	157	147	196	196
	ASTM D256	12.7 x 62.5 x 12.7mm (0°C)	J/m	177	196	80	98	108	108
	ASTM D256	12.7 x 62.5 x 12.7mm (-30°C)	J/m	118	137	70	70	80	80
Izod Impact Strength, notched	ASTM D256	12.7 x 62.5 x 3.2mm (23°C)	J/m	265	314	168	182	212	215
	ASTM D256	12.7 x 62.5 x 3.2mm (0°C)	J/m	196	226	88	98	157	157
	ASTM D256	12.7 x 62.5 x 3.2mm (-30°C)	J/m	137	157	70	80	118	108
Thermal									
HDT (Unannealed) 127 x 12.7 x 12.7mm	ASTM D648	1.82 MPa Loading, 18.56 kg/cm ²	°C	93	91	92	94	92	92
HDT (Unannealed) 127 x 12.7 x 6.4mm	ASTM D648	1.82 MPa Loading, 18.56 kg/cm ²	°C	88	85	87	89	87	86
Thermal Conductivity	ASTM C177		W/K.m	0.15	0.15	0.15	0.15	0.15	0.16
Coefficient of Linear Thermal Expansion	ASTM D696		mm/mm°C	7.4 x 10 ⁻⁵	7.6 x 10 ⁻⁵	7.0 x 10 ⁻⁵	6.9 x 10 ⁻⁵	7.1 x 10 ⁻⁵	7.2 x 10 ⁻⁵
Flammability									
Flammability	UL 94		—	HB	HB	HB	HB	HB	HB
Electrical									
Specific Surface Resistivity	ASTM D257	at 23°C	ohm	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶
Specific Volume Resistivity	ASTM D257	at 23°C	ohm.cm	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶
Dielectric Strength	ASTM D149	Short Time	KV/mm	23	24	23	22	23	23
Dielectric Constant	ASTM D150	1000 Hz	—	3.1	3.1	3.1	3.1	3.1	3.1
Power Factor	ASTM D150	1000 Hz	—	6.6 x 10 ⁻³	6.5 x 10 ⁻³	6.3 x 10 ⁻³	5.6 x 10 ⁻³	6.1 x 10 ⁻³	6.2 x 10 ⁻³