



ChangZhou Yi Yi International Trade Co., Ltd.

Product Data Sheet of PET、PA46、PA6T

Item	ASTM	unit	Grade							
			PET 101G50	PET 301G30	PC/PET 801	PC/PET 101G10	PA46 801	PA46 801A	PA46 101G35	PA46 301G30
Density	D792	g/cm ³	1.49	1.68	1.18	1.31	1.18	1.13	1.7	1.68
Tensile strength at break	D638	MPa	115	90	55	60	55	40	145	125
Elongation at break	D638	%	3	3	30	5	10	15	3	3
Flexural strength at yield	D790	MPa	170	135	60	80	90	45	230	200
Flexural modulus	D790	MPa	7500	6000	2500	3500	3500	2000	11000	9000
Notched izod impact strength	D256	KJ/m ²	8.0	7.0	30.0	10.0	7.0	30.0	9.0	8.0
Rockwell hardness	D785	-	120	120	110	115	120	120	120	120
Melting point	D789	℃	254	254	254	254	295	295	295	295
Heat deflection temperature(0.45MPa)	D648	℃	240	243	102	125	290	290	290	290
Flame retardancy	UL94	-	HB	VO	HB	HB	V2	HB	HB	VO
Surface resistivity	D257	Ohm	10 ¹³	10 ¹⁴	10 ¹³	10 ¹³	10 ¹⁵	10 ¹⁵	10 ¹⁵	10 ¹⁵
Dielectric strength	D149	KV/mm	24	25	24	24	24	24	25	25
Linear molding shrinkage	D955	mm/mm	0.003	0.003	0.007	0.005	0.012	0.016	0.003	0.003
Filler				GF30		GF10			GF35	GF30
Characteristic			Glass fiber reinforced PET	Glass fiber reinforced flame	High impact PC / PET alloy	Glass fiber reinforced PC / PET alloy	General PA46	Toughened PA46	Glass fiber reinforced PA46	Glass fiber reinforced flame
Application			Pump parts cowl, bearing components, energy-saving lamp, connectors, coil		Machinery parts, auto parts, doors and panels, household appliances, electrical products		Mechanical Components connectors, circuit breakers, motor parts, high temperature electrical and electronic components			

Product Data Sheet of PP								
Item	ASTM	unit	Grade					
			PP201	PP801	PP101G20	PP101G30	PP401M20	PP401M30
Density	D792	g/cm³	1.01	0.90	1.04	1.12	1.04	1.14
Tensile strength at break	D638	MPa	28	20	40	70	25	30
Elongation at break	D638	%	20	50	40	70	25	30
Flexural strength at yield	D790	MPa	35	16	50	80	40	45
Flexural modulus	D790	MPa	2100	1300	3000	5000	2400	2800
Notched izod impact strength	D250	KJ/m²	4.5	25.0	6.0	7.0	4.5	4.5
Rockwell hardness	D785	-	90	70	110	103	98	100
Melting point	D789	°C	170	170	170	170	170	170
Heat deflection temperature(0.45MPa)	D648	°C	95	90	140	150	115	125
Flame retardancy	UL94	-	VO	HB	HB	HB	HB	HB
Surface resistivity	D257	Ohm	10 ¹⁵	10 ¹⁶	10 ¹⁶	10 ¹⁶	10 ¹⁴	10 ¹⁴
Dielectric strength	D149	KV/mm	19	15	14.8	16.5	19	19
Linear molding shrinkage	D955	mm/mm	0.010	0.018	0.006	0.004	0.012	0.010
Filler					GF20	GF30	M20	M30
Characteristic			Flame retardancy	High impact pressure	Glass fiber reinforced, high strength, high rigidity, heat		Mineral reinforced, high rigidity	
Application			Electronic component	radiator	Auto parts, engine fan, textile equipment, electronic devices		Auto parts, electronic appliances, machinery parts	

Product Data Sheet of PA66

Item	ASTM	unit	Grade							
			PA66 201	PA66 301G25	PA66 8012	PA66 8015	PA66 101G15	PA66 102G30	PA66 801	PA66 401M15
Density	D792	g/cm³	1.24	1.45	1.08	1.09	1.21	1.36	1.13	1.24
Tensile strength at break	D638	MPa	75	140	45	60	115	145	80	70
Elongation at break	D638	%	10	3.0	60	40	3.0	20.0	10.0	15.0
Flexural strength at yield	D790	MPa	95	180	50	80	145	165	90	75
Flexural modulus	D790	MPa	2700	7500	1500	2300	5000	7000	2700	3000
Notched izod impact strength	D250	KJ/m²	6.0	7.0	60.0	12.0	8.0	18.0	3.4	12.0
Rockwell hardness	D785	-	120	120	110	110	120	110	120	118
Melting point	D789	℃	260	259	260	260	258	260	255	255
Heat deflection temperature(0.45MPa)	D648	℃	215	250	190	200	255	250	210	238
Flame retardancy	UL94	-	VO	VO	HB	HB	HB	HB	HB	HB
Surface resistivity	D257	Ohm	10 ¹³	10 ¹³	10 ¹³	10 ¹³	10 ¹³	10 ¹³	10 ¹³	10 ¹³
Dielectric strength	D149	KV/mm	17	17	20	20	20	20	20	20
Linear molding shrinkage	D955	mm/mm	0.012	0.003	0.016	0.013	0.004	0.004	0.012	0.010
Filler				GF25			GF15	GF30		M15
Characteristic			Universal flame retardant	Glass fiber reinforced flame	Toughened, high impact, lubrication		Glass fiber reinforced		General purpose Easy mold	Mineral reinforced
Application			Electrical and electronic parts, circuit	Electrical and electronic parts, connectors	Textile equipment, railway parts, sports equipment, pipe fitting, cable ties		Bearing cage, mechanical parts, auto parts, electrical components		Machinery parts, electrical connectors	Automobile wheel covers, mechanical

Product Data Sheet of PA6

Item	ASTM	unit	Grade							
			PA6 201	PA6 301G15	PA6 301G30	PA6801	PA6 8012	PA6 101G15	PA6 101G30	PA6 8011
Density	D792	g/cm³	1.18	1.30	1.52	1.03	1.10	1.28	1.36	1.13
Tensile strength at break	D638	MPa	80	90	120	40	55	145	170	75
Elongation at break	D638	%	5	3.0	3	>35	>35	3.0	3.0	10.0
Flexural strength at yield	D790	MPa	90	105	165	45	65	150	240	90
Flexural modulus	D790	MPa	2500	4500	7000	1600	2000	6500	7500	2550
Notched izod impact strength	D256	KJ/m²	7.0	8.0	8.0	60.0	14.0	12.0	13.0	6.0
Rockwell hardness	D785	-	120	120	120	100	110	120	120	118
Melting point	D789	℃	220	220	220	220	220	220	220	220
Heat deflection temperature(0.45MPa)	D648	℃	170	195	215	130	160	215	215	160
Flame retardancy	UL94	-	VO	VO	VO	HB	HB	HB	HB	HB
Surface resistivity	D257	Ohm	10 ¹²	10 ¹²	10 ¹²	10 ¹³	10 ¹³	10 ¹²	10 ¹²	10 ¹³
Dielectric strength	D149	KV/mm	17	17	17	20	20	17	17	20
Linear molding shrinkage	D955	mm/mm	0.012	0.004	0.002	0.016	0.013	0.004	0.003	0.014
Filler				GF15	GF30			GF25	GF30	
Characteristic			Universal flame retardant, reinforced flame retardant			Toughened, high impact, lubrication		Glass fiber reinforced		General purpose,Flo wable
Application			Electrical and electronic parts			Wheel covers, connectors,bearing cage, cable ties		Electric tool shell, machinery parts, fishing gear, coil bobbins, auto parts, railway parts		Mechanical parts, coil bobbin

Product Data Sheet of PBT								
Item	ASTM	unit	Grade					
			PBT 201	PBT 301G15	PBT 301G30	PBT 101G15	PBT 101G30	PBT 801
Density	D792	g/cm³	1.25	1.55	1.65	1.42	1.53	1.25
Tensile strength at break	D638	MPa	56	90	110	98	125	38
Elongation at break	D638	%	5	3.0	2.5	3. 5	2. 5	40.0
Flexural strength at yield	D790	MPa	60	120	140	110	180	45
Flexural modulus	D790	MPa	2300	5000	6500	4600	7500	1500
Notched izod impact strength	D250	KJ/m²	6.5	6.0	7.0	7.0	8.0	8.0
Rockwell hardness	D785	-	119	120	120	119	120	110
Melting point	D789	℃	220-225	220-225	220-225	220-225	220-225	220-225
Heat deflection temperature(0.45MPa)	D648	℃	170	215	220	210	215	120
Flame retardancy	UL94	-	VO	VO	VO	HB	HB	HB
Surface resistivity	D257	Ohm	10 ¹³	10 ¹³	10 ¹³	10 ¹³	10 ¹³	10 ¹³
Dielectric strength	D149	KV/mm	15	20	20	15	20	15
Linear molding shrinkage	D955	mm/mm	0.015	0.008	0.006	0.010	0.005	0.018
Filler				GF15	GF30	GF15	GF30	
Characteristic			Universal flame retardant	reinforced flame retardant	Glass fiber reinforced		Universal toughened	
Application			Electronics	High-intensity electrical and electronic parts	Relays, capacitors, potentiometers, electrical switch housing		Coil bobbins, connectors	

Product Data Sheet of PC、ABS

Item	ASTM	unit	Grade						
			PC/ABS 201	PC/ABS 301G30	ABS 101G20	ABS 201	PC/ABS 801	PC/PBT 201	PC/PBT 801
Density	D792	g/cm³	1.25	1.42	1.22	1.16	1.20	1.21	1.20
Tensile strength at break	D638	MPa	62	110	60	50	55	50	50
Elongation at break	D638	%	50	3.0	3	2	55	10.0	90.0
Flexural strength at yield	D790	MPa	80	150	70	70	65	60	65
Flexural modulus	D790	MPa	2400	6500	4500	2500	2300	2350	2200
Notched izod impact strength	D256	KJ/m²	40.0	10.0	6.8	8.0	45.0	8.0	90.0
Rockwell hardness	D785	-	105	120	110	110	115	115	110
Melting point	D789	℃	-	-	-	-	-	-	-
Heat deflection temperature(0.45MPa)	D648	℃	130	155	110	87	110	90	125
Flame retardancy	UL94	-	VO	VO	HB	VO	HB	VO	HB
Surface resistivity	D257	Ohm	10 ¹⁴	10 ¹⁴	10 ¹⁵	10 ¹⁵	10 ¹⁴	10 ¹⁴	10 ¹⁴
Dielectric strength	D149	KV/mm	16	16	16	18	17	16	17
Linear molding shrinkage	D955	mm/mm	0.005	0.003	0.003	0.005	0.006	0.008	0.010
Filler				GF30	GF20				
Characteristic			Flame retardancy	reinforced flame retardant	Glass fiber reinforced	Universal flame retardant	PC/ABS alloy	Flame-retardant PC / PBT alloy	PC/PBT alloy
Application			Electrical and electronic parts		Electrical components	Household appliance	Cell phone case, instrument case, vehicle bumpers, electrical components, auto parts, chair, car handle		