



Thermoplastic Alloy Compounds

合金塑料

Loyblend® is CIPC's line of thermoplastics alloy such as PC/ABS and PC/PBT with different flow and thermal properties. Loyblend® PC/ABS is a compounded blend of polycarbonate and ABS. The PC contributes impact and heat distortion resistance, while the ABS contributes processability and chemical stress resistance. Loyblend® PC/ABS is used for portable appliances, handphones, printer enclosures, automotive instrument panel retainers, laptop computer cases, camera housings, disk drives chassis etc. Loyblend® PC/PBT is a compounded blend of Polycarbonate and PBT. The PC contributes impact, stiffness and heat resistance, while the PBT contributes chemical resistance. The usual moisture sensitivity of the crystalline PBT is overcome by the PC in the blend. Loyblend® PC/PBT is used in automotive side moldings, lawn and garden hoods, hand tool housings etc.

Loyblend® 是本公司的合金材料，如 PC/ABS、PC/PBT 等拥有不同的流动性和热性能的材料。Loyblend® PC/ABS 合金结合了PC的高冲击强度、耐高温性能和 ABS 的耐化学药品性和成型加工性。Loyblend® PC/PBT 合金结合了PC的高冲击强度、耐高温性能、尺寸稳定性和PBT的耐溶剂性和高流动性。

特点：耐翘曲，刚性和耐热性佳，良好的韧性，加工性能佳。

应用：汽车部件，仪表盘，出风格，电视机外壳，相机外壳。

Loyblend® Thermoplastic Alloy Compounds

	TYPICAL PROPERTIES	ASTM TEST METHOD	UNITS	TA-1101FR	TA-1010FR	TA-1030FR	TA-1810FR	TA-1840FR	TY-1000	YA-1002	YA-1004	YA-1101
				PC/ABS	PC/ABS	PC/ABS	PC/ABS	PC/ABS	PC/PBT	PBT/ABS	PBT/ABS	PBT/ABS
	Feature(特性)			Halogenated	Halogen free	Halogen free	Halogen free	Halogen free	-	-	-	-
	Filler			-	-	-	-	-	-	Glass filled	Glass filled	Glass filled
	Filler Content(灰份)			-	-	-	-	-	-	20%	40%	20%
	MECHANICAL / 机械性能											
1	Tensile Strength / 拉伸强度	D638	MPa	52	50	58	65	59	51	105	116	100
2	Elongation at break / 断裂伸长率	D638	%	50	>50	>50	116	>30	100	4	2.3	4.15
3	Flexural Strength / 弯曲强度	D790	MPa	85	80	90	97	94	76	150	180	145
4	Flexural Modulus / 弯曲模数	D790	MPa	2450	2750	2700	2700	2550	2050	5500	11340	5480
5	Notched Izod Impact @ 23°C, 3.2mm / 缺口冲击强度	D256	J/m	600	600	510	680	480	700	100	128	98
	PHYSICAL / 物理性能											
1	Specific Gravity / 比重	D792	g/cm3	1.20	1.17	1.17	1.18	1.19	1.21	1.35	1.55	1.32
2	Mold Shrinkage* / 成型收缩率	D955	%	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.5-0.7	0.4-0.6	0.3-0.5	0.2-0.4	0.3-0.5
	THERMAL / 热性能											
1	Heat Deflection Temp@0.45 MPa (66psi)	D648	°C	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	Heat Deflection Temp@1.82 MPa (264psi) 热变形温度	D648	°C	100	75	80	88	87	100	196	210	184
3	Flammability UL 94 @ 1.6mm / 燃烧性能	UL94	mm	V-0	V-0	V-0	V-0	HB	HB	HB	HB	HB
	SUGGESTED PROCESSING PARAMETERS 建议操作参数											
1	Drying Temperature / 干燥温度		°C	90	90	90	90	90	90	90	90	90
2	Drying Time / 干燥时间		Hours	4	4	4	4	4	4	4	4	4
3	Processing (Melt) Temperature / 操作温度		°C	230-260	230-250	230-250	230-260	230-250	240-270	250-260	250-260	250-260
4	Mold Temperature / 模温		°C	50-90	50-90	50-90	50-90	50-90	50-90	50-90	50-90	90-90

Applications:

Loyblend® thermoplastic alloy compounds are used in handphones housings, hard disk drives, scanners, camera housings, laptop housings etc.

*The mold shrinkage values herein are solely based on our own laboratory testing specimens. Users are strongly advised to conduct their own test as molding conditions, mold design, thickness all play a part in determining the part shrinkage.

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Colour Image Plastic Compound Sdn. Bhd. (Co.No. 527104-T)

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Plant 2 : Lot 557 (GM 340), Mukim Hulu Semenyih, Daerah Hulu Langat, Selangor Darul Ehsan, Malaysia.

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	TYPICAL PROPERTIES	ASTM TEST METHOD	UNITS	TA-1101FR	TA-1010FR	TA-1030FR	TA-1810FR	TA-1840FR	TY-1000	YA-1002	YA-1004	YA-1101
				PC/ABS	PC/ABS	PC/ABS	PC/ABS	PC/ABS	PC/PBT	PBT/ABS	PBT/ABS	PBT/ABS
	Feature(特性)			Halogenated	Halogen free	Halogen free	Halogen free	Halogen free	-	-	-	-
	Filler			-	-	-	-	-	-	Glass filled	Glass filled	Glass filled
	Filler Content(灰份)			-	-	-	-	-	-	20%	40%	20%
	MECHANICAL / 机械性能											
1	Tensile Strength / 拉伸强度	D638	MPa	52	50	58	65	59	51	105	116	100
2	Elongation at break / 断裂伸长率	D638	%	50	>50	>50	116	>30	100	4	2.3	4.15
3	Flexural Strength / 弯曲强度	D790	MPa	85	80	90	97	94	76	150	180	145
4	Flexural Modulus / 弯曲模数	D790	MPa	2450	2750	2700	2700	2550	2050	5500	11340	5480
5	Notched Izod Impact @ 23°C, 3.2mm / 缺口冲击强度	D256	J/m	600	600	510	680	480	700	100	128	98
	PHYSICAL / 物理性能											
1	Specific Gravity / 比重	D792	g/cm3	1.20	1.17	1.17	1.18	1.19	1.21	1.35	1.55	1.32
2	Mold Shrinkage* / 成型收缩率	D955	%	0.4-0.6	0.4-0.6	0.4-0.6	0.4-0.6	0.5-0.7	0.4-0.6	0.3-0.5	0.2-0.4	0.3-0.5
	THERMAL / 热性能											
1	Heat Deflection Temp@0.45 MPa (66psi)	D648	°C	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	Heat Deflection Temp@1.82 MPa (264psi) 热变形温度	D648	°C	100	75	80	88	87	100	196	210	184
3	Flammability UL 94 @ 1.6mm / 燃烧性能	UL94	mm	V-0	V-0	V-0	V-0	HB	HB	HB	HB	HB
	SUGGESTED PROCESSING PARAMETERS 建议操作参数											
1	Drying Temperature / 干燥温度		°C	90	90	90	90	90	90	90	90	90
2	Drying Time / 干燥时间		Hours	4	4	4	4	4	4	4	4	4
3	Processing (Melt) Temperature / 操作温度		°C	230-260	230-250	230-250	230-260	230-250	240-270	250-260	250-260	250-260
4	Mold Temperature / 模温		°C	50-90	50-90	50-90	50-90	50-90	50-90	50-90	50-90	90-90

Applications:

Loyblend® thermoplastic alloy compounds are used in handphones housings, hard disk drives, scanners, camera housings, laptop housings etc.

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	TYPICAL PROPERTIES	ASTM TEST METHOD	UNITS	YA-1201	YA-1803	YA-1001FR	YA-1011FR	TK-1000	HA-1300	HA-1500	HA-1700
				PBT/ABS	PBT/ABS	PBT/ABS	PBT/ABS	PC/PET	PMMA/ABS	PMMA/ABS	PMMA/ABS
	Feature(特性)			-	-	Halogenated	Halogenated	-	-	-	-
	Filler			Glass filled	Glass filled	-	-	-	-	-	-
	Filler Content(灰份)			20%	40%	-	-	-	-	-	-
	MECHANICAL / 机械性能										
1	Tensile Strength / 拉伸强度	D638	MPa	96	110	52	90	59	50	48	40
2	Elongation at break / 断裂伸长率	D638	%	4.3	2	5	2.5	115	40	24	45
3	Flexural Strength / 弯曲强度	D790	MPa	140	175	98	136	92	80	78	60
4	Flexural Modulus / 弯曲模数	D790	MPa	5450	10290	5630	6000	2390	2644	2672	2060
5	Notched Izod Impact @ 23°C, 3.2mm / 缺口冲击强度	D256	J/m	95	103	40	82	712	95	175	230
	PHYSICAL / 物理性能										
1	Specific Gravity / 比重	D792	g/cm3	1.30	1.53	1.48	1.44	1.21	1.10	1.07	1.09
2	Mold Shrinkage* / 成型收缩率	D955	%	0.3-0.5	0.2-0.4	0.4-0.6	0.4-0.6	0.6-0.9	0.4-0.7	0.4-0.7	0.4-0.7
	THERMAL / 热性能										
1	Heat Deflection Temp@0.45 MPa (66psi)	D648	°C	NA	NA	NA	NA	NA	NA	NA	NA
2	Heat Deflection Temp@1.82 MPa (264psi) 热变形温度	D648	°C	144	200	125	176	104	76	77	86
3	Flammability UL 94 @ 1.6mm / 燃烧性能	UL94	mm	HB	HB	V-0	V-0	HB	HB	HB	HB
	SUGGESTED PROCESSING PARAMETERS 建议操作参数										
1	Drying Temperature / 干燥温度		°C	90	90	90	90	100	90	90	90
2	Drying Time / 干燥时间		Hours	4	4	4	4	4	4	4	4
3	Processing (Melt) Temperature / 操作温度		°C	250-260	250-260	250-260	250-260	250-260	190-220	190-220	190-220
4	Mold Temperature / 模温		°C	50-90	50-90	50-90	50-90	50-90	50-90	50-90	50-90

Applications:

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