



聚乳酸与结晶聚乳酸

PLA(Poly Lactic Acid) & CPLA(Crystallized PLA)

生物全降解材料的明日双星 [Future double stars of 100% Bio-degradable Materials](#)

聚乳酸是一种100%生物基材，并且100%可堆肥降解的材料。PLA 就是 Polylactic acid 聚乳酸的缩写，是由玉米、木薯、秸秆等生物基原料，加工成淀粉，先分解成葡萄糖，再经过发酵成乳酸，乳酸提纯后聚合成低分子量聚乳酸，再裂解成双乳酸酯，最后经过开环聚合成高分子量的聚乳酸。

由于 PLA 的耐热温度只有 55℃，因此无法适应热饮杯的环境。想要制作耐热更好的材料，就必须再经过一层结晶工艺，这样才能得到耐热95℃的材料，也就是CPLA(Crystallized PLA)。这样就可以达到咖啡杯盖耐高温的需求，而且两者一样具备有100%生物基、可堆肥、可再生、抑菌的环保性能。

Polylactic acid is a 100% bio based material that is 100% compostable and biodegradable. PLA stands for Polylactic Acid, which is made from bio based materials such as corn, cassava, and straw. It is processed into starch, first broken down into glucose, and then fermented into lactic acid. After purification, the lactic acid is polymerized into low molecular weight polylactic acid, which is then broken down into lactic acid esters. Finally, it is synthesized into high molecular weight polylactic acid through ring opening polymerization.

Due to the heat-resistant temperature of PLA being only 55 °C, it cannot adapt to the environment of hot beverage cups. To produce materials with better heat resistance, it is necessary to go through another layer of crystallization process in order to obtain materials with a heat resistance of 95 °C, which is CPLA (Crystallized PLA). This can meet the high temperature resistance requirements of coffee cup lids, and both have 100% bio based, compostable, renewable, and antibacterial environmental performance.





PRODUCT	PRODUCT DESCRIPTION	DIAMETER	CARTON QTY	CARTON SIZE	NET/GROSS KG
	CPLA HOT LID-58	58mm	1000PCS	31*24.5*19cm	1.45/2.1
	CPLA HOT LID-62	62mm	1000PCS	35*28.5*21.5cm	1.8/2.4
	CPLA HOT LID-73	73mm	1000PCS	40.9*33*26.5cm	2.5/3.25
	CPLA HOT LID-80	80mm	1000PCS	43*35*25.5cm	2.8/3.5
	CPLA HOT LID-85	85mm	1000PCS	46*36*27cm	3.3/4.1
	CPLA HOT LID-90	90mm	1000PCS	48*39*26cm	3.5/4.4
	FLAT CPLA HOT LID-90	90mm	1000PCS	44*36*27cm	3.5/4.3
	FLAT CPLA HOT LID-115	115mm	500PCS	61*26.5*27.5cm	2.9/4.0



PRODUCT DESCRIPTION	BASE DIAMETER	HEIGHT	CARTON QTY	CARTON SIZE	NET/GROSS KG
PLA CUP-05oz-76	46mm	63mm	2000PCS	60*40*33cm	8.5/9.25
PLA CUP-07oz-76	49mm	80mm	1000PCS	40*33*36cm	4.88/5.68
PLA CUP-09oz-76	48mm	99mm	1000PCS	40*33*40.5cm	6.5/7.35
PLA CUP-12ozA-84	53mm	106mm	1000PCS	46*37*45cm	7.0/7.9
PLA CUP-12ozB-84	48.8mm	110mm	1000PCS	46*37*49cm	7.0/8.0
PLA CUP-12oz-95	59mm	105mm	1000PCS	49.5*40*40cm	9.8/10.6
PLA CUP-16oz-95	59mm	122mm	1000PCS	49.5*40*39.5cm	11.3/12.1
PLA CUP-20oz-95	57mm	146mm	1000PCS	49.5*40*46.6cm	12/12.9
PLA CUP-09oz-96	57mm	72mm	1000PCS	50*41*37cm	7.5/8.4
PLA CUP-10oz-96	56mm	80mm	1000PCS	50*41*42cm	8.0/9.0
PLA CUP-12oz-96	56mm	102mm	1000PCS	50*41*43cm	10.0/11.0
PLA CUP-14oz-96	57.6mm	106mm	1000PCS	50*41*45cm	11.0/12.1
PLA CUP-16oz-96	60mm	129mm	1000PCS	50*41*45cm	12.45/13.5
PLA CUP-20ozA-96	58mm	140mm	1000PCS	50*41*59cm	13/134.2
PLA CUP-20ozB-96	59.5mm	140mm	1000PCS	50*41*59cm	14.0/15.2
PLA CUP-12oz-98	56mm	93mm	1000PCS	51*41*42cm	11.0/12.0
PLA CUP-16oz-98	61mm	120mm	1000PCS	51*41*45cm	13.0/14.1
PLA CUP-20oz-98	61mm	139mm	1000PCS	51*41*53cm	15.0/16.2
PLA CUP-32oz-117	73mm	160mm	500PCS	61*25*55cm	9.0/10.0



PRODUCT DESCRIPTION	BASE DIAMETER	HEIGHT	CARTON QTY	CARTON SIZE	NET/GROSS KG
PLA FLAT LID-76	80 mm	8mm	1000PCS	42*21*35cm	1.5/2.2
PLA ARCH LID-76	80 mm	32mm	1000PCS	42*26*35cm	2/2.8
PLA FLAT LID-90	93 mm	9mm	1000PCS	49*39*22.5cm	2/2.8
PLA ARCH LID-90	93 mm	42mm	1000PCS	49*39*26cm	2.5/3.4
PLA FLAT LID-95/96	98 mm	10mm	1000PCS	52*42*23cm	2.5/3.2
PLA DIRECT DRINKING LID-95/96	98 mm	10mm	1000PCS	52*42*23.5cm	3.0/3.8
PLA ARCH LID-95/96	98 mm	44mm	1000PCS	52*42*26.5cm	3.5/4.3
PLA FLAT LID-98	102 mm	10mm	1000PCS	53*42*23cm	2.5/3.2
PLA DIRECT DRINKING LID-98	102 mm	12mm	1000PCS	53*42*24cm	3.0/3.8
PLA ARCH LID-98	102 mm	45mm	1000PCS	53*42*28cm	3.5/4.4
PLA FLAT LID-117	120 mm	25mm	500PCS	63*25*25cm	2.75/3.35



PRODUCT	PRODUCT DESCRIPTION	LENGTH	CARTON QTY	CARTON SIZE	NET/GROSS KG
	PAPER KNIFE	157mm	1000PCS	27.5*19.5*16.5cm	2.95/3.15
	PAPER FORK	157mm	1000PCS	33*18.5*19cm	2.96/3.58
	PAPER SPOON	157mm	1000PCS	33*18.5*19cm	3.46/3.71
	PAPER KNIFE & FORK KIT	157mm	250PCS	45*32*21cm	3.1/3.45
	PAPER CUTLERY KIT	157mm	250PCS	45*25*21cm	2.28/2.68
	PAPERS CUTLERY KIT (SPOON/STRAW/ NAPKIN)	157mm	250PCS	45*25*21cm	1.58/2.18



PRODUCT DESCRIPTION	FACE DIAMETER	BASE DIAMETER	HEIGHT	CARTON QTY	CARTON SIZE
8 OUNCE	80.5mm	56mm	88mm	1000PCS	41.5*33*54cm
12 OUNCE	89.72mm	59.4mm	111.3mm	1000PCS	46.5*36.5*52cm
16 OUNCE	89mm	60mm	135.6mm	1000PCS	46.5*36.5*55cm



PRODUCT	PRODUCT DESCRIPTION	CARTON QTY	CARTON SIZE	NET/GROSS KG
	90-SERIES PAPER FLAT LID, NO HOLE	1000PCS	49.5*35*40cm	8.1/8.5
	90-SERIES PAPER FLAT PULL-BACK SEAL SIPPER LID	1000PCS	49.5*35*40cm	3.93/4.33
	90-SERIES PAPER FLAT LID, SINGLE HOLE	1000PCS	49.5*35*40cm	4/4.4
	90-SERIES PAPER DOME SIPPER LID	1000PCS	49.5*35*40cm	5.44/5.84