

Customer : GSIPackage : uBGADevice Type : GS4576C18GL/GS4576S18GL/GS4576C36GL

TY20120521-01

Date: May, 21, 2012

	Name	Composition	CAS No.	%	mg(Ave)	Material Weight(mg)	%	PPM	
Mold Compound	KMC-2520-2LCA	Amorphous Silica	Confidential	85.0%	147.6	163.9	36.7%	367179	
		Epoxy Resin Compound	Confidential	4.0%	6.9		1.7%	17279	
		Phenol Compound	Confidential	4.0%	6.9		1.7%	17279	
		Imidazole Compound	Confidential	1.0%	1.7		0.4%	4320	
		Carbon Black	1333-86-4	0.4%	0.7		0.2%	1728	
TAB Tape	Copper Foil + Base Film + Adhesive	Copper	7440-50-8	45.7%	18.9	41.4	4.7%	47042	
		Polyimide Film	Confidential	35.8%	14.8		3.7%	36871	
		Polyimide Siloxane	Confidential	7.4%	3.1		0.8%	7628	
		Epoxy Resin	Confidential	6.2%	2.6		0.6%	6357	
		Phenol Resin	Confidential	3.7%	1.5		0.4%	3814	
		Silica	7631-86-9	1.2%	0.5		0.1%	1271	
	Copper Foil	Copper	7440-50-8	99.90%	16.9	16.9	4.2%	42051	
		Ni	7440-02-0	0.01%	0.0		0.0%	4	
		Zn	7440-66-6	0.03%	0.0		0.0%	13	
	Gold	Au	7440-57-5	100.0%	0.7	0.7	0.2%	1741	
	IR-G029		Acrylic resin	Confidential	41.2%	1.3	3.1	0.3%	3199
			Silica	Confidential	27.0%	0.8		0.2%	2097
			Block isocyanato	Confidential	20.3%	0.6		0.2%	1576
			Guanamine resin	Confidential	4.4%	0.1		0.0%	342
			Additive agent	Confidential	2.6%	0.1		0.0%	202
			Polyester resin	Confidential	2.5%	0.1		0.0%	194
			Organic pigment	Confidential	1.0%	0.0		0.0%	78
			Inorganic pigment	Confidential	1.0%	0.0		0.0%	78
	PSR4000		Acrylate Resin	Confidential	43.0%	1.7	4.0	0.4%	4287
			Talc	14807-96-6	5.0%	0.2		0.0%	499
			Barium Sulfate	7727-43-7	10.0%	0.4		0.1%	997
			Silica	Confidential	1.0%	0.0		0.0%	100
			Diethylene glycol monoethyl ether acetate	112-15-2	15.0%	0.6		0.1%	1496
Dipropylene glycol monomethyl ether			34590-94-8	5.0%	0.2	0.0%		499	
Petroleum naphtha			64742-94-5	15.0%	0.6	0.1%		1496	
Diethylene glycol monoethyl ether acetate acetate			88917-22-0	5.0%	0.2	0.0%		499	
Naphthalene			91-20-3	1.0%	0.0	0.0%		100	
Die						80.0		80.0	19.9%
Elastomer	Type-C2	Polytetrafluoroethylene	9002-84-0	69.6%	15.5	22.3	3.9%	38651	
		Epoxy resin+sermo seting material	Confidential	30.4%	6.8		1.7%	16882	
Solder Ball	96.5Sn3Ag0.5Cu	Sn	7440-31-5	90.0%	66.0	69.7	16.4%	164232	
		Argentine	7440-22-4	4.0%	2.9		0.7%	7299	
		Copper	7440-50-8	1.0%	0.7		0.2%	1825	
Total						402.0			