

Hitachi Cable Confidential

Customer : GSI  
 Package : uBGA  
 Device Type : GS4576C18L/GS4576S18L/GS4576C36L

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	35.9%	358774
		Epoxy Resin Compound	Confidential	4.0%	6.9		1.7%	16883
		Phenol Compound	Confidential	4.0%	6.9		1.7%	16883
		Imidazole Compound	Confidential	1.0%	1.7		0.4%	4221
		Carbon Black	1333-86-4	0.4%	0.7		0.2%	1688
TAB Tape	Copper Foil + Base Film + Adhesive	Copper	7440-50-8	45.7%	18.9	41.4	4.6%	45965
		Polyimide Film	Confidential	35.8%	14.8		3.6%	36027
		Polyimide Siloxane	Confidential	7.4%	3.1		0.7%	7454
		Epoxy Resin	Confidential	6.2%	2.6		0.6%	6211
		Phenol Resin	Confidential	3.7%	1.5		0.4%	3727
		Silica	7631-86-9	1.2%	0.5		0.1%	1242
	Copper Foil	Copper	7440-50-8	99.90%	16.9	16.9	4.1%	41088
		Ni	7440-02-0	0.01%	0.002		0.0%	4
		Zn	7440-66-6	0.03%	0.005		0.0%	12
	Gold	Au	7440-57-5	100.0%	0.7	0.7	0.2%	1701
	IR-G029	Acrylic resin	Confidential	41.2%	1.3	3.1	0.3%	3126
		Silica	Confidential	27.0%	0.8		0.2%	2049
		Block isocyanato	Confidential	20.3%	0.6		0.2%	1540
		Guanamine resin	Confidential	4.4%	0.1		0.0%	334
		Additive agent	Confidential	2.6%	0.1		0.0%	197
		Polyester resin	Confidential	2.5%	0.1		0.0%	190
		Organic pigment	Confidential	1.0%	0.03		0.0%	76
		Inorganic pigment	Confidential	1.0%	0.03		0.0%	76
	PSR4000	Acrylate Resin	Confidential	43.0%	1.7	4.0	0.4%	4189
		Talc	14807-96-6	5.0%	0.2		0.0%	487
		Barium Sulfate	7727-43-7	10.0%	0.4		0.1%	974
		Silica	Confidential	1.0%	0.0		0.0%	97
		Diethylene glycol monoethyl ether acetate	112-15-2	15.0%	0.6		0.1%	1461
Dipropylene glycol monomethyl ether		34590-94-8	5.0%	0.2	0.0%		487	
Petroleum naphtha		64742-94-5	15.0%	0.6	0.1%		1461	
Diethylene glycol monoethyl ether acetate acetate		88917-22-0	5.0%	0.2	0.0%		487	
Naphthalene		91-20-3	1.0%	0.04	0.0%		97	
Die				80.0	80.0	19.4%	194333	
Elastomer	Type-C2	Polytetrafluoroethylene	9002-84-0	69.6%	15.5	22.3	3.8%	37767
		Epoxy resin+sermo seting material	Confidential	30.4%	6.8		1.6%	16496
Solder Ball	62Sn36Pb2Ag	Sn	7440-31-5	60.0%	47.5	79.1	11.5%	115367
		Lead	7439-92-1	37.0%	29.3		7.1%	71143
		Argentine	7440-22-4	3.0%	2.4		0.6%	5768
Total						411.4		