



PK820(v1.0) November 30, 2016

## 100% Material Declaration Data Sheet for 7-Series FBG676 RoHS 6/6

Average Weight : 3.0200 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
Silicon die					<b>0.388430</b>	<b>12.86%</b>
	Silicon	7440-21-3	100.00	basis	0.388430	
Bump					<b>0.015339</b>	<b>0.51%</b>
	Tin	7440-31-5	98.20	basis	0.015063	
	Silver	7440-22-4	1.80	basis	0.000276	
Underfill					<b>0.054600</b>	<b>1.81%</b>
	Bisphenol F type liquid epoxy	9003-36-5	15.00	basis	0.008190	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.005460	
	Bisphenol A type liquid epoxy	25068-38-6	5.00	basis	0.002730	
	Amine type hardener	trade secret	10.00	basis	0.005460	
	Silicon dioxide	60676-86-0	58.00	filler	0.031668	
	Carbon black	1333-86-4	1.00	color agent	0.000546	
	Additives	trade secret	1.00	additives	0.000546	
Solder paste					<b>0.003468</b>	<b>0.11%</b>
	Tin	7440-31-5	96.50	metal	0.003347	
	Silver	7440-22-4	3.00	metal	0.000104	
	Copper	7440-50-8	0.50	metal	0.000017	
Capacitor 1					<b>0.000300</b>	<b>0.01%</b>
	BaTiO3 type	1304-28-5	40.00	Ceramic	0.000120	
	Titanium dioxide	13463-67-7	20.00		0.000060	
	Misc	-	6.67		0.000020	
	Nickel	7440-02-0	2.42	Inner electrode	0.000007	
	Copper	7440-50-8	20.73	Out electrode	0.000062	
	Silicon dioxide	7631-86-9	1.85		0.000006	
	diboron trioxide; boric oxide	1303-86-2	0.45		0.000001	
	Nickel	7440-02-0	2.12	Plating1	0.000006	
	Tin	7440-31-5	5.76	Plating2	0.000017	
Capacitor 2					<b>0.000920</b>	<b>0.03%</b>
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.000291	
	Titanium dioxide	13463-67-7	15.83		0.000146	
	Misc	-	5.28		0.000049	
	Nickel	7440-02-0	26.67	Inner Electrode	0.000245	
	Copper	7440-50-8	15.10	Outer Electrode	0.000139	
	Silicon dioxide	7631-86-9	1.34		0.000012	
	diboron trioxide; boric oxide	1303-86-2	0.33		0.000003	
	Nickel	7440-02-0	1.00	Plating1	0.000009	
Capacitor 3					<b>0.003600</b>	<b>0.12%</b>
	BaTiO3 type	1304-28-5	37.46	Ceramic	0.001349	
	Titanium dioxide	13463-67-7	18.73		0.000674	
	Misc	-	6.24		0.000225	
	Nickel	7440-02-0	17.95	Inner Electrode	0.000646	
	Copper	7440-50-8	15.88	Outer Electrode	0.000572	
	Silicon dioxide	7631-86-9	1.41		0.000051	
	diboron trioxide; boric oxide	1303-86-2	0.35		0.000013	
	Nickel	7440-02-0	0.54	Plating1	0.000019	
Solder ball					<b>0.000052</b>	
	Tin	7440-31-5	1.44	Plating2	0.000052	
					<b>0.564707</b>	<b>18.70%</b>
	Tin	7440-31-5	96.50	Main material	0.544942	
Substrate	Silver	7440-22-4	3.00	Main material	0.016941	
	Copper	7440-50-8	0.50	Main material	0.002824	
					<b>1.988636</b>	<b>65.85%</b>
	Copper	7440-50-8	35.80		0.711931	
	Tin	7440-31-5	0.73		0.014517	
	Silver	7440-22-4	0.02		0.000398	
	Core	N/A	47.28		0.940227	
	ABF	N/A	13.95		0.277415	
	Soldermask	N/A	2.22		0.044148	

## Revision History

Date	Version	Description of Revisions
11/30/2016	1.0	Initial Xilinx release.