



100% Material Declaration Data Sheet for FBV484

PK778 (v1.0) Feb 12, 2016

Average Weight : 2.005701 g						
Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
Silicon die	Si	7440-21-3	100.00	basis	0.156648	7.81%
					0.156648	
Bump	Sn	7440-31-5	98.20	basis	0.006458	0.33%
	Ag	7440-22-4	1.80	basis	0.000118	
					0.026000	1.30%
Underfill	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.003900	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.002600	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.001300	
	Amine type hardener	trade secret	10.00	basis	0.002600	
	Silicon dioxide	60676-86-0	58.00	filler	0.015080	
	Carbon black	1333-86-4	1.00	color agent	0.000260	
	Additives	trade secret	1.00	additives	0.000260	
					0.002920	0.15%
Solder paste	Sn	7440-31-5	96.50	metal	0.002818	
	Ag	7440-22-4	3.00	metal	0.000088	
	Cu	7440-50-8	0.50	metal	0.000015	
					0.000600	0.03%
Capacitor 1	BaTiO3 type	1304-28-5	40.00	Ceramic	0.000240	
	Titanium dioxide	13463-67-7	20.00		0.000120	
	Misc	-	6.67		0.000040	
	Ni	7440-02-0	2.42	Inner electrode	0.000015	
	Cu	7440-50-8	20.73	Out electrode	0.000124	
	Silicon dioxide	7631-86-9	1.85		0.000011	
	diboron trioxide; boric oxide	1303-86-2	0.45		0.000003	
	Ni	7440-02-0	2.12	Plating1	0.000013	
	Sn	7440-31-5	5.76	Plating2	0.000035	
					0.004600	0.23%
Capacitor3	BaTiO3 type	1304-28-5	31.67	Ceramic	0.001457	
	Titanium dioxide	13463-67-7	15.83		0.000728	
	Misc	-	5.28		0.000243	
	Ni	7440-02-0	26.67	Inner Electrode	0.001227	
	Cu	7440-50-8	15.10	Outer Electrode	0.000695	
	Silicon dioxide	7631-86-9	1.34		0.000062	
	diboron trioxide; boric oxide	1303-86-2	0.33		0.000015	
	Ni	7440-02-0	1.00	Plating1	0.000046	
	Sn	7440-31-5	2.78	Plating2	0.000128	
					0.014400	0.72%
Capacitor4	BaTiO3 type	1304-28-5	37.46	Ceramic	0.005394	
	Titanium dioxide	13463-67-7	18.73		0.002697	
	Misc	-	6.24		0.000899	
	Ni	7440-02-0	17.95	Inner Electrode	0.002585	
	Cu	7440-50-8	15.88	Outer Electrode	0.002287	
	Silicon dioxide	7631-86-9	1.41		0.000203	
	diboron trioxide; boric oxide	1303-86-2	0.35		0.000050	
	Ni	7440-02-0	0.54	Plating1	0.000078	
	Sn	7440-31-5	1.44	Plating2	0.000207	
					0.040317	20.16%
Solder ball	Sn	7440-31-5	96.50	Main material	0.390166	
	Ag	7440-22-4	3.00	Main material	0.012130	
	Cu	7440-50-8	0.50	Main material	0.002022	
					0.393732	19.63%
Plating <sup>1</sup>	Copper	7440-50-8	100.00		0.393732	
					0.034122	1.70%
Bump <sup>1</sup>	Tin	7440-31-5	89.00		0.030368	
	Silver	7440-22-4	8.00		0.00273	
	Copper	7440-50-8	3.00		0.001024	
					0.714424	35.62%
Core <sup>1</sup>	Copper	7440-50-8	41.00		0.292914	
	Glass Cloth	65997-17-3	26.00		0.18575	
	Silica	7631-86-9	12.00		0.085731	
	Thermosetting Resin and Other Filler	Trade secret	21.00		0.150029	

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
ABF <sup>1</sup>					<b>0.217915</b>	<b>10.86%</b>
	Silica	7631-86-9	35.00		0.07627	
	Bisphenol A epoxy resin	25068-38-6	7.50		0.016344	
	Bisphenol F epoxy resin	9003-36-5	7.50		0.016344	
	Multifunctional aromatic epoxy resin	Trade Secret	3.00		0.006537	
	Coal tar naphtha	64742-94-5	3.00		0.006537	
	Cyclohexanone	108-94-1	3.00		0.006537	
	N,N-Dimethylformamide	68-12-2	0.55		0.001199	
	Toluene	108-88-3	0.20		0.000436	
	Methyl ethyl ketone	78-93-3	0.20		0.000436	
	Naphthalene	91-20-3	0.05		0.000109	
Others	Trade Secret	40.00		0.087166		
				<b>0.029447</b>	<b>1.47%</b>	
Soldermask <sup>1</sup>	Modified epoxy resin	Trade secret	38.00		0.01119	
	Barium sulfate	7727-43-7	14.00		0.004122	
	2-(2-Ethoxyethoxy)ethyl acetate	112-15-2	13.00		0.003828	
	3-Methyl-3-methoxybutyl acetate	103429-90-9	13.00		0.003828	
	Silica	60676-86-0	10.00		0.002945	
	Solvent naphtha	64742-94-5	8.00		0.002356	
	Organic materials	Trade secret	4.00		0.001178	

1. Subcomponent of Substrate Component

### Revision History

Date	Version	Description of Revisions
02/12/2016	1	Initial Xilinx release.

### Notice of Disclaimer

Xilinx regards this materials data to be correct but makes no guarantee as to its accuracy or completeness, including, but not limited to, with respect to its compliance with applicable environmental laws and regulations. Xilinx subcontracts the production, test and assembly of hardware devices to independent third-party vendors and materials suppliers ("Contractors"). All data provided hereunder is based on information received from Contractors. Xilinx has not independently verified the accuracy or completeness of this information which is provided solely for your reference in connection with the use of Xilinx products.