

fcBGA80  
Package Material Declaration



Date	12-Jun-20	Product name	Integrated Circuit
Package Code	TH	RoHS Compliant	Y
Package Name	Neopac II: fcBGA with glass window	Halogen Free	Y
Product Total Mass (g)	0.1041	Plating	Tin/Silver/Copper alloy
<b>Product Number</b>	MLX75026		

Material Declaration

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)
PCB Substrate	Copper Oxide Black	0.0131	Copper Oxide	1317-38-0	100	0.0131	125608
	CCL-HL832NSF	0.0138	Cured thermosetting resin	Trade secrets	51.561	0.0071	68544
			Continuous Filament Fiber Glass	65997-17-3	48.439	0.0067	64394
	PSR-800 AUS SR3	0.0032	Silica	7631-86-9	58.387	0.0018	17764
			Acrylate type resin	Trade secrets	23.382	0.0007	7114
			Epoxy resin	Trade secrets	7.316	0.0002	2226
			Aroylphosphine oxide	Trade secrets	3.227	0.0001	982
			Amine compound	Trade secrets	3.227	0.0001	982
			Other components	Trade secrets	3.227	0.0001	982
			Organic pigment	Trade secrets	0.617	0.00002	188
Phthalocyanine Blue			Trade secrets	0.617	0.00002	188	
Bump	Cu Target	0.00001	Copper (Cu)	7440-50-8	100	0.00001	130
	Cu Plating	0.0015	Copper (Cu)	7440-50-8	100	0.0015	14292
	TiW Target	0.00002	Titanium (Ti)	7440-32-6	10	0.000002	21
			Tungsten (W)	7440-33-7	90	0.00002	191
	SnAg plating	0.0001	Tin (Sn)	7440-31-5	97.5	0.00008	767
			Silver (Ag)	7440-22-4	2.5	0.000002	20
	WPR-5107	0.0001	Phenolic resin	Trade secret	28	0.00003	295
			Photosensitizer	Trade secret	5	0.000005	53
			Epoxy compound	Trade secret	2	0.000002	21
			Coupling agent	Trade secret	1	0.000001	11
			Melamine compound	Trade secret	3	0.000003	32
			Propylene glycol monomethyl ether acetate	108-65-6	48	0.00005	506
			Diacetone alcohol	123-42-2	13	0.00001	137
Die	Silicon	0.0149	Silicon (Si)	7440-21-3	99.99	0.0149	143041
			others	-	0.01	0.000001	14
Coating	SiO <sub>2</sub>	0.0000002	Silicon dioxide	7631-86-9	99.98	0.0000002	2
			Aluminum (Al)	7429-90-5	0.013	0.00000000003	0.0002
			Zinc (Zn)	7440-66-6	0.007	0.00000000001	0.0001
Coating	SiO <sub>2</sub>	0.0000002	Silicon dioxide	60676-86-0	100	0.000002	17
Coating	Ti <sub>2</sub> O <sub>5</sub>	0.0000001	Titanium Pentoxide	12065-65-5	100	0.000001	10
Glass	Glass without declarable substances	0.0160	Fused silica	60676-86-0	63.95	0.0102	98291
			Aluminium oxide	1344-28-1	15.12	0.0024	23239
			Diboron-trioxide	1303-86-2	9.30	0.0015	14294
			Magnesium-oxide	1309-48-4			
			Calcium-oxide	1305-78-8	11.63	0.0019	17875
			Strontium-oxide	1314-11-0			
Solder Ball	98.25 Sn/1.2 Ag/0.5 Cu/0.05 Ni	0.0281	Tin (Sn)	7440-31-5	98.25	0.0276	265373
			Silver (Ag)	7440-22-4	1.2	0.0003	3241
			Copper (Cu)	7440-50-8	0.5	0.0001	1350
			Nickel (Ni)	7440-02-0	0.05	0.00001	135
Glass attach Epoxy	7920 (DA-6620)	0.00004	Dimethyl Siloxane reaction with Silica	67762-90-7	8.19	0.000003	33
			Silica, vitreous	60676-86-0	16.38	0.00001	66
			Quartz	14808-60-7	0.82	0.0000003	3
			Carbon Black	1333-86-4	0.82	0.0000003	3
			Hexamethyldisilazane reaction with Silica	68909-20-6	0.08	0.00000003	0.3
			Dimethyl Siloxane, Dimethylvinylsiloxylterminated	68083-19-2	40.95	0.00002	165
			Treated silica	Trade secret	24.57	0.00001	99
Dimethyl, Methylhydrogen Siloxane, Trimethylsiloxy-terminated	68037-59-2	8.19	0.000003	33			
Encapsulation	LOCTITE ECCOBOND FP4531	0.0132	Silica, vitreous	60676-86-0	48.98	0.0065	62336
			Substituted anhydride	27610-48-6	16.327	0.0022	20779
			1,6-Naphthalenediol diglycidyl ether	Trade secret	8.163	0.0011	10389
			Polyepoxides	Trade secret	8.163	0.0011	10389
			Silicon dioxide	7631-86-9	8.163	0.0011	10389
			Resin	Trade secret	8.163	0.0011	10389
Epoxy resin	Trade secret	2.041	0.0003	2598			

Total package weight (g)

0.1041

### Comments

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to [environment@melexis.com](mailto:environment@melexis.com)

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