

14 Leads - TSSOP
Package Material Declaration



Date	28-Mar-19	Product name	Integrated Circuit
Package Code	GO	RoHS Compliant	Y
Package Name	Thin Plastic Shrink Small Outline 173mil	Halogen Free	Y
Product Total Mass (g)	0.05960	Plating	Pure Matte Sn
Product Number	MLX90288		

Material Declaration

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)
Leadframe	Copper Nickel C7025	0.01881	Copper (Cu) (remaining)	7440-50-8	94.775	0.01783	299114
			Nickel (Ni)	7440-02-0	3.2	0.00060	10099
			Cobalt (Co)	7440-48-4	0.2	0.00004	631
			Silicon (Si)	7440-21-3	0.725	0.00014	2288
			Iron (Fe)	7439-89-6	0.1	0.00002	316
			Magnesium (Mg)	7439-95-4	0.175	0.00003	552
			Manganese (Mn)	7439-96-5	0.05	0.00001	158
			Lead (Pb)	7439-92-1	0.025	0.000005	79
			Zinc (Zn)	7440-66-6	0.5	0.00009	1578
			others	-	0.25	0.00005	789
Plating	Silver	0.00019	Silver (Ag)	7440-22-4	100	0.00019	3188
Die	Silicon IC 1	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	50666
			others	-	0.01	0.0000003	5
	Silicon IC 2	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	50666
			others	-	0.01	0.0000003	5
Die attach material	Conductive epoxy 84-3	0.00067	Quartz (SiO2)	14808-60-7	55	0.00037	6183
			Epoxy resin	-	43.605	0.00029	4902
			Dimethyl silicone polymer with silica	67762-90-7	0.75	0.00001	84
			Diiron-trioxide	1309-37-1	0.25	0.000002	28
			Aluminum oxide	1344-28-1	0.25	0.000002	28
			Titanium-dioxide	13463-67-7	0.075	0.000001	8
			Cu-Phthalocyanin	147-14-8	0.07	0.0000005	8
		0.00067	Quartz (SiO2)	14808-60-7	55	0.00037	6183
			Epoxy resin	-	43.605	0.00029	4902
			Dimethyl silicone polymer with silica	67762-90-7	0.75	0.00001	84
			Diiron-trioxide	1309-37-1	0.25	0.000002	28
			Aluminum oxide	1344-28-1	0.25	0.000002	28
			Titanium-dioxide	13463-67-7	0.075	0.000001	8
			Cu-Phthalocyanin	147-14-8	0.07	0.0000005	8
Wire	Gold	0.00112	Gold (Au)	7440-57-5	99.99	0.00112	18790
			Others	-	0.01	0.0000001	2
Lead Finish	Tin	0.00135	Tin (Sn)	7440-31-5	99.99	0.00135	22649
			Others	-	0.01	0.0000001	2
Encapsulation	Epoxy resin CEL9220HF13V	0.03075	Epoxy resin	Proprietary	7	0.00215	36116
			Phenol resin (2~7%)	Proprietary	5	0.00154	25797
			Silica (74~92%)	60676-86-0	80.8	0.02485	416879
			Carbon black (0.2%)	1333-86-4	0.2	0.00006	1032
			Metal Hydroxide (1~10%)	Proprietary	5	0.00154	25797
			Others (max 3%)	-	2	0.00062	10319

Total package weight (g) 0.05960

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

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