

16 Leads - TSSOP
Package Material Declaration



Date	16-Mar-21	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)	0.06183	Plating	Pure Matte Sn

Product Number	MLX90421
-----------------------	----------

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	95.025	0.01787	289107		
			Iron (Fe) (0.2 max)	7439-89-6	0.1	0.000019	304		
			Lead (Pb) (0.005 max)	7439-92-1	0.025	0.0000047	76		
			Cobalt (Co) (0.4 max)	7440-48-4	0.2	0.00004	608		
			Nickel (Ni) (2.2~4.2%)	7440-02-0	3.2	0.00060	9736		
			Zinc (Zn) (1.0 max)	7440-66-6	0.5	0.000094	1521		
			Manganese (Mn) (0.10 max)	7439-96-5	0.05	0.000009	152		
			Silicon (Si) (0.25~1.2%)	7440-21-3	0.725	0.00014	2206		
			Magnesium (Mg) (0.05~0.3%)	7439-95-4	0.175	0.00003	532		
Plating	Silver	0.00019	Silver (Ag)	7440-22-4	100	0.00019	3073		
Die	Silicon 1	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	48842		
			others	-	0.01	0.0000003	5		
	Silicon 2	0.00302	Silicon (Si)	7440-21-3	99.99	0.00302	48842		
			others	-	0.01	0.0000003	5		
IMC	S-FeNi-8	0.000012	Iron (Fe)	7439-89-6	19.75	0.0000024	38		
			Nickel (Ni) (0.0 ~ 80%)	7440-02-0	40	0.0000048	78		
			Molybdenum (Mo) (0.0 ~ 80%)	7439-98-7	40	0.0000048	78		
			others (max. 0.5%)	-	0.25	0.00000003	0.5		
Die attach material	Epoxy Adhesive 84-3	0.00067	Quartz (SiO2)	14808-60-7	55	0.00037	5960		
			Epoxy resin	-	43.605	0.00029	4725		
			Dimethyl silicone polymer with silica	67762-90-7	0.75	0.00001	81		
			Diiron-trioxide	1309-37-1	0.25	0.000002	27		
			Aluminum oxide	1344-28-1	0.25	0.000002	27		
			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	5960	
		Epoxy resin		-	43.605	0.00029	4725		
		Dimethyl silicone polymer with silica		67762-90-7	0.75	0.00001	81		
		Diiron-trioxide		1309-37-1	0.25	0.000002	27		
		Aluminum oxide		1344-28-1	0.25	0.000002	27		
		Titanium-dioxide		13463-67-7	0.075	0.000001	8		
		Cu-Phthalocyanin		147-14-8	0.07	0.0000005	8		
		Wire		Gold with Palladium	0.00056	Gold (Au)	7440-57-5	99	0.00055
			Palladium (Pd)			7440-05-3	1	0.0000056	91
Lead Finish	Tin	0.00126	Tin (Sn)	7440-31-5	99.99	0.00126	20436		
			Others	-	0.01	0.0000001	2		
			Encapsulation	Silica EP G700HA	0.03361	Silica fused	60676-86-0	78	0.02622
Silicon dioxide	7631-86-9	9.5				0.00319	51644		
Epoxy Resin	-	7.5				0.00252	40772		
Phenol Resin	-	4.5				0.00151	24463		
Carbon Black	1333-86-4	0.5				0.00017	2718		

Total package weight (g) 0.06183

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

Disclaimer

"MELEXIS has taken every effort to ensure that the information provided in this document is correct, accurate and up-to-date.

MELEXIS, however, shall not be held liable for any improper or incorrect use of the information described and/or contained herein and assumes no responsibility whatsoever for recipient's or a third party's use of this information. In no event MELEXIS shall be held liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to: procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, tort (including negligence or otherwise), or any other theory arising in any way out of the use of this system, even if advised of the possibility of such damage.

This disclaimer of liability applies to any damages or injury, whether based on alleged breach of contract, tortious behavior, negligence or any other cause of action".

The content of this document is CONFIDENTIAL & PROPRIETARY. ALL Rights Reserved.