



## Device Material Content

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**Package:** 48 TQFP (1.0mm)  
**Total Device Weight** 0.140 Grams

**Package Code:**

TN48

**Products:**

LA4k

**Assembly:** ASEM

Size (mm): 7 x 7 x 1.4

Lead pitch (mm): 0.5

MSL: 3

Reflow max (°C): 260

	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	% of Subst.	Notes / Assumptions:
<b>Die</b>	2.12%	0.0030			Silicon chip	7440-21-3	100.00%	Die size: 2.00 x 2.20 mm
<b>Mold Compound</b>	70.17%	0.0982	4.21%	0.0059	Epoxy Resin	-	6.00%	Mold Compound: Hitachi CEL9220HF
			3.51%	0.0049	Phenol Resin	-	5.00%	
			0.14%	0.0002	Carbon Black	1333-86-4	0.20%	
			59.78%	0.0837	Silica	60676-86-0	85.20%	
			2.53%	0.0035	Others	-	3.60%	
<b>D/A Epoxy</b>	0.32%	0.0004	0.26%	0.00036	Silver (Ag)	7440-22-4	80.00%	Die attach epoxy: Henkel (Ablebond) 3230
			0.06%	0.00009	Esters & resins	-	20.00%	
<b>Wire</b>	1.01%	0.0014	1.01%	0.0014	Gold (Au)	7440-57-5	100.00%	1.00 mil diameter; 1 wire per package lead
<b>Plating</b>	4.06%	0.0057	4.06%	0.0057	Tin (Sn)	7440-31-5	100.00%	Plating is 100% Sn; thickness is 0.015mm
<b>Leadframe</b>	22.32%	0.0312	21.58%	0.0302	Copper (Cu)	7440-50-8	96.70%	C7025
			0.67%	0.0009	Nickel (Ni)	7440-02-0	3.01%	
			0.04%	0.00005	Silicon (Si)	7440-21-3	0.17%	
			0.01%	0.00001	Magnesium (Mg)	7439-95-4	0.03%	
			0.02%	0.00003	Silver (Ag)	7440-22-4	0.09%	

**Notes:**

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.

Constituent substances and proportions in epoxy materials are before curing.

The information provided above is representative of the package as of the date listed, and is subject to change at any time.

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