


# MATERIAL DECLARATION SHEET



Material Number	CR2010			
Product Line	Chip resistors			
Compliance Date	4-1-2003			
RoHS Compliant	Yes	MSL	1	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Substrate	Ceramic	0.0204	Aluminum oxide	1344-28-1	96%	86.8512%	90.47%
				Silicon dioxide	14808-60-7	4%	3.6188%	
2	Conductor Layer	Conductor glass	0.00034	Silver	7440-22-4	96%	1.43%	1.51%
				Bismuth trioxide	1304-76-3	1%	0.02%	
				Barium oxide	1304-28-5	1%	0.02%	
				Silicon dioxide	7631-86-9	1%	0.02%	
				Boron oxide	1303-86-2	1%	0.02%	
3	Resistive Element	Resistor glass	0.000274	Ruthenium dioxide	12036-10-1	25%	0.3025%	1.21%
				Silver	7440-22-4	40%	0.484%	
				Palladium	7440-05-3	15%	0.1815%	
				PbO(Glass)	1317-36-8	20%	0.242%	
4	Over Coating	Epoxy	0.00039	Epoxy	29690-82-2	100%	1.75%	1.75%
5	Marking	Epoxy	0.000025	Epoxy	25068-38-6	100%	0.11%	0.11%
6	End Terminal	Ni-Cr	0.000009	Nickel	7440-02-0	80%	0.032%	0.04%
				Chromium III	7440-47-3	20%	0.008%	
7	Ni Plating	Nickel	0.00058	Nickel	7440-02-0	100%	2.59%	2.59%
8	Sn Plating	Tin	0.00052	Tin	7440-31-5	100%	2.32%	2.32%
			Total weight	0.022538				

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**This Document was updated on: 2010.11.09**

**Important remarks:**

1. It is the responsibility of the user to verify they are accessing the latest version.
2. RoHS exemption 5 – lead in glass of...electronic components...