



# Material Declaration Sheet

Vishay Inter-technology

Date: 4/25/2022

### Part / Product Family Details

Part / Family Series	RoHS Compliance Status	RoHS Compliance Date Code	Total product Weight (mg)	Value Range	Product Type	Manufacturing Location	Number of Exemptions Used
CRCW2512-HP e3 series (Except 1R to less than 5R)	YES WITH EXEMPTION	16-Oct-2004	40.9647221	CRCW2512-HP e3 series (Except 1R to less than 5R)	Resistor	Vishay BCComponents Buechling	1

### Technical Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	JESD-97 Pb-Free Material Code Marking	J-STD-20D MSL Rating	Reflow Peak Process Body Temperature	Reflow Maximum number of cycles	Reflow Max. Time at Peak Temperature (sec)	Soldering Compatibility (SnPb/Pb-Free)
Sn	Other	e3	1	260 ° C	3	40	Backward & Forward

### Material Composition

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (mg)	With respect to Homogenous Material		% with respect to Total Product Weight	RoHS Exemptions Used
					%	ppm		
Ceramic substrate	Ceramics / glass	Aluminium oxide	1344-28-1	34.47550	95.50	955000	84.16	0 - None
		Magnesium oxide	1309-48-4	0.35740	0.99	9900	0.87	0 - None
		Silicon dioxide	7631-86-9	1.05050	2.91	29100	2.56	0 - None
		Miscellaneous	System	0.21660	0.60	6000	0.53	0 - None
				1.15200				
EP-QD-85	other durometer	Epoxy resin	25068-38-6	0.19584	17.00	170000	0.48	0 - None
		Silicon dioxide	7631-86-9	0.95616	83.00	830000	2.33	0 - None
Glass electrical contact	Ceramics / glass			0.03528				
		Chromium	7440-47-3	0.00001	0.02	218	0.00	0 - None
Glass Enamel	Ceramics / glass	Lead silicate (Glass)	10099-76-0	0.03527	99.98	999782	0.09	7(c)-I
				0.47270				
Glass layer	Ceramics / glass	Chromium oxide (III)	1308-38-9	0.00993	2.10	21007	0.02	0 - None
		Lead silicate (Glass)	10099-76-0	0.46277	97.90	978993	1.13	7(c)-I
Nickel plating	Nickel alloys			0.55200				
		Lead silicate (Glass)	10099-76-0	0.19320	35.00	350000	0.47	7(c)-I
		Palladium	7440-05-3	0.05520	10.00	100000	0.13	0 - None
		Ruthenium oxide	12036-10-1	0.19320	35.00	350000	0.47	0 - None
		Silver	7440-22-4	0.11040	20.00	200000	0.27	0 - None
Silver electrical contact	other special metal			0.50370				
		Nickel	7440-02-0	0.50320	99.90	999000	1.23	0 - None
Sn99.9	Other special metal	Miscellaneous	System	0.00050	0.10	1000	0.00	0 - None
				1.21361				
		Copper	7440-50-8	0.00001	0.00	10	0.00	0 - None
		Silver	7440-22-4	1.21360	100.00	999990	2.96	0 - None
				0.93543				
		Tin	7440-31-5	0.93449	99.90	999000	2.28	0 - None
		Miscellaneous	System	0.00094	0.10	1000	0.00	0 - None

EU-RoHS Directive-2011/65/EU MCV of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and MCV of 0.01% by mass cadmium

Exemption Used 7(c)-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

Note :- (i) All information is based on data received from our vendors & subjected to change without prior notice.  
(ii) Substance weight are derived from MSDS.

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