MATERIAL DECLARATION SHEET

BOURNS®

Material Number	CWM0612Q Series		
Product Line	Thick film automotive wide termination chip resistor		
Compliance Date	**04/27/2025**		
RoHS Compliant	**Yes** (Lead Exemption)	MSL	**1**

No.	Construction Element(subpart)	Homogeneous Material	Material weight [mg]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Substrate	Ceramic	8.588	Aluminum Oxide	1344-28-1	96	81.946	85.36
				Silicon Dioxide	14808-60-7	2	1.707	
				Magnesium Oxide	1309-48-4	2	1.707	
2	Top Conductor Layer	Silver	0.1620	Silver	7440-22-4	100	1.610	1.610
3	Back Conductor Layer	Silver	0.0543	Silver	7440-22-4	100	0.540	0.540
4	Resistive Element	Resistance paste	0.1087	Silver	7440-22-4	40	0.432	1.08
				Ruthenium Dioxide	12036-10-1	20	0.216	
				Palladium	7440-05-3	15	0.162	
				None-lead Glass	65997-18-4	14.9	0.161	
				Lead	7439-92-1	10.1	0.109	

CASRN: CAS Registry Number® is a Registered Trademark of the American Chemical Society

5	First encapsulating	Glass	0.1038	None-lead Glass	65997-18-4	74	0.763	1.032
				Silica	14808-60-7	12	0.124	
				Aluminum	1344-28-1	6	0.062	
				Chromic Oxide	1308-38-9	8	0.083	
6	Overcoat	Resin	0.2327	Resin	25036-25-3	100	2.313	2.313
7	Side conductor	Silver	0.2341	Silver	7440-22-4	85	1.978	2.327
				Resin	9003-36-5	15	0.349	
8	Ni Plating	Ni	0.1985	Nickel	7440-02-0	100	1.973	1.973
9	Plating (Outer)	Sn	0.3573	Tin	7440-31-5	100	3.551	3.551
10	Marking	Resin	0.0215	Resin	29690-82-2	70	0.15	0.214
				Titanium dioxide	1317-80-2	30	0.064	
		Total weight	10.0609					

This Document was updated on: 4/27/2025

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.

   a. "Compliance Date" is not the date supplier submits the MDS, but when the product was first compliant with RoHS.
   b. "This Document was updated on:" is where we indicate when supplier submits the MDS. All previous MDS must be archived for traceability in the future.

   c. Material weights for components less than 100mg (most Semiconductor products) should be listed in milligrams. This avoids all those zeros and round off issues.

2. RoHS exemption: 7(c)-1 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.