

MATERIAL DECLARATION SHEET



Material Number	UW			
Product Line	Fixed Resistor			
Compliance Date	10/10/2024			
RoHS Compliant		MSL	1	

Reference P/N: UW5-4RJ1 (Under 15 Ohm)

No.	Construction Element (Subpart)	Homogeneous Material	Material Weight (g)	Homogeneous Material Substance	CASRN	Material Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Core	Ceramic	0.6200	Silicon Dioxide (SiO ₂)	7631-86-9	14.5000%	0.7169%	4.9445%
				Magnesium (Mg)	7439-95-4	1.1300%	0.0559%	
				Aluminum (Al)	7429-90-5	83.3200%	4.1197%	
				Barium (Ba)	7440-39-3	1.0500%	0.0519%	
2	Ceramic Cap	Iron	0.1900	Iron (Fe)	7439-89-6	99.9000%	1.5137%	1.5152%
				Tin (Sn)	7440-31-5	0.1000%	0.0015%	
3	Terminal	Copper C10100	0.127	Copper (Cu)	7440-50-8	99.9954%	1.0128%	1.0128%
		Tin Plating	0.003	Trace not to declare		0.0046%	0.0000%	
4	Resistive Element	Cuprothal	0.1024	Tin (Sn)	7440-31-5	100.0000%	0.0239%	0.8166%
				Nickel (Ni)	7440-02-0	44.0000%	0.3593%	
				Iron (Fe)	7439-89-6	0.5000%	0.0041%	
				Manganese (Mn)	7439-96-5	1.0000%	0.0082%	
5	Silicon coat	Silicon	0.0920	Copper (Cu)	7440-50-8	54.5000%	0.4451%	0.7337%
				Silica, amorphous	112926-00-8	31.2000%	0.2289%	
				Silica, crystalline - Tripoli	1317-95-9	25.0000%	0.1834%	
				Kaolin	1332-58-7	12.9000%	0.0946%	
				Carbon black	1333-86-4	0.6000%	0.0044%	
6	Cement	Cement	8.5049	Mica	12001-26-2	12.9000%	0.0946%	67.8260%
				Trimethoxy(methyl)silane	1185-55-3	17.4000%	0.1277%	
				Phosphoric Acid, Magnesium Salt	7757-86-0	14.0000%	9.4956%	
				zircon (zr(sio ₄))	14940-68-2	73.0000%	49.5129%	
7	Ceramic Boat	Boat	2.9000	Magnesium Oxide	1309-48-4	12.0000%	8.1391%	23.1273%
				Boric Acid	10043-35-3	1.0000%	0.6783%	
		Total Weight	12.5393					

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Reference P/N: UW5-150RF1 (Over 15 Ohm)

No.	Construction Element (Subpart)	Homogeneous Material	Material Weight (g)	Homogeneous Material Substance	CASRN	Material Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic Core	Ceramic	0.6200	Silicon Dioxide (SiO ₂)	7631-86-9	14.5000%	0.7219%	4.9788%
				Magnesium (Mg)	7439-95-4	1.1300%	0.0563%	
				Aluminum (Al)	7429-90-5	83.3200%	4.1483%	
				Barium (Ba)	7440-39-3	1.0500%	0.0523%	
2	Ceramic Cap	Iron	0.1900	Iron (Fe)	7439-89-6	99.9000%	1.5242%	1.5257%
				Tin (Sn)	7440-31-5	0.1000%	0.0015%	
3	Terminal	Copper C10100	0.1270	Copper (Cu)	7440-50-8	99.9954%	1.0198%	1.0198%
		Tin Plating	0.0030	Trace not to declare		0.0046%	0.0000%	
4	Resistive Element	EVNOM Alloy	0.0160	Tin (Sn)	7440-31-5	100.0000%	0.0241%	0.1285%
				Nickel (Ni)	7440-02-0	74.4000%	0.0956%	
				Chromium (Cr)	7440-47-3	20.0000%	0.0257%	
				Aluminum (Al)	7429-90-5	3.5000%	0.0045%	
				Silicon (Si)	7440-21-3	1.0000%	0.0013%	
				Iron (Fe)	7439-89-6	0.5000%	0.0006%	
				Manganese (Mn)	7439-96-5	0.5000%	0.0006%	
Copper (Cu)	7440-50-8	0.1000%	0.0001%					
5	Silicon coat	Silicon	0.0920	Silica, amorphous	112926-00-8	31.2000%	0.2305%	0.7388%
				Silica, crystalline - Tripoli	1317-95-9	25.0000%	0.1847%	
				Kaolin	1332-58-7	12.9000%	0.0953%	
				Carbon black	1333-86-4	0.6000%	0.0044%	
				Mica	12001-26-2	12.9000%	0.0953%	
				Trimethoxy(methyl)silane	1185-55-3	17.4000%	0.1285%	
6	Cement	Cement	8.5049	Phosphoric Acid, Magnesium Salt	7757-86-0	14.0000%	9.5615%	68.2965%
				zircon (zr(sio ₄))	14940-68-2	73.0000%	49.8565%	
				Magnesium Oxide	1309-48-4	12.0000%	8.1956%	
				Boric Acid	10043-35-3	1.0000%	0.6830%	
7	Ceramic Boat	Boat	2.9000	Kaolin Powder	1332-58-7	100.0000%	23.2877%	23.2877%
		Total Weight	12.4529					

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BOURNS®

This Document was updated on: 10/16/2024

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Resistive material weight will be different based on the resistance value.
3. The weight of the core and coating material will differ based on the size.