

# MATERIAL DECLARATION SHEET



Material Number	FWP220S Series			
Product Line	Fixed Resistors			
Compliance Date	2025/7/23			
RoHS Compliant	No	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	Lead Plating	Tin Plating	1.32	Tin	7440-31-5	90.9	0.057	0.063
				Copper	7440-50-8	7.6	0.005	
				Silver	7440-22-4	1.5	0.001	
2	Leads	Copper	180	Copper	7440-50-8	100	8.493	8.493
3	Inside Soldering	Tin Plating	4.1	Tin	7440-31-5	7.3	0.014	0.193
				Lead	7439-92-1	85.4	0.165	
				Silver	7440-22-4	7.3	0.014	
4	Heatsink	Copper Plate	1350	Copper	7440-50-8	100	63.697	63.697
5	Heatsink Plating	Nickel Plating	1	Nickel	7440-02-0	100	0.047	0.047
6	Substrate	Aluminium	120	Aluminium	7429-90-5	100	5.662	5.662

# MATERIAL DECLARATION SHEET



7	Foilbond	Foilbond	11	Dimethylacetamide	127-19-5	100	0.519	0.519
8	Resistor Material	Manganin <sup>R1</sup>	10	Copper	7440-50-8	83	0.392	0.472
				Nickel	7440-02-0	3	0.014	
				Manganese	7439-96-5	14	0.066	
9	Chipbond	Filled Epoxy	40	Epoxy	25068-38-6	100	1.887	1.887
10	Cover	Silicone Based	4	Silicon	7440-21-3	100	0.094	0.094
11	Mold	Fortron 1140L4	400	Polyphenylensulfid	26125-40-6	100	18.873	18.873
		Total weight	2121.42					

**This Document was updated on: 2025/7/23**

**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.