MATERIAL DECLARATION SHEET

BOURNS®

Material Number	**PWR220T-35**		
Product Line	**Fixed Resistor**		
Compliance Date	**10/31/2025**		
RoHS Compliant		MSL	**1**



PWR220T > 4 Ω

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	Housing	Epoxy Molding Compound	0.5000	Silica, vitreous	60676-86-0	75.0000%	20.6623%	27.5497%
				Epoxy cresol novolac resin	29690-82-2	14.0000%	3.8570%	
				Phenol formaldehyde resin	9003-35-4	7.0000%	1.9285%	
				3,5,3',5'-Tetrabromobisphenol A, epichlorohydrin polymer	40039-93-8	2.0000%	0.5510%	
				Carbon black	1333-86-4	1.0000%	0.2755%	
				Antimony trioxide	1309-64-4	1.0000%	0.2755%	
2	Back Plate	Copper C102	1.0530	Copper	7440-50-8	99.9990%	58.0191%	58.0197%
				Oxygen	7782-44-7	0.0010%	0.0006%	
		Plating	0.0030	Nickel	7440-02-0	100.0000%	0.1653%	0.1653%
3	Terminals	Copper C102	0.1512	Copper	7440-50-8	99.9990%	8.3310%	8.3310%
				Oxygen	7782-44-7	0.0010%	0.0001%	
		Plating	0.0064	Tin	7440-31-5	100.0000%	0.3526%	0.3526%
4	Solder Paste	Solder	0.0200	Tin	7440-31-5	95.0000%	1.0469%	1.1020%
				Silver	7440-22-4	3.0000%	0.0331%	
				Copper	7440-50-8	0.5000%	0.0055%	
				Misc, not to declare	N/A	1.5000%	0.0165%	
5	Substrate	Alumina	0.0780	Aluminum oxide	1344-28-1	96.0000%	4.1258%	4.2978%
				Silicon dioxide	7631-86-9	2.0000%	0.0860%	
				Magnesium oxide	1309-48-4	1.0000%	0.0430%	
				Calcium oxide	1305-78-8	1.0000%	0.0430%	

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6	Termination Pad	Ink	0.0020	Silver	7440-22-4	95.6000%	0.1054%	0.1102%
				Platinum	7440-06-4	2.0000%	0.0022%	
				Dibismuth-trioxide	1304-76-3	1.0000%	0.0011%	
				Lead	7439-92-1	1.0000%	0.0011%	
				Copper	7440-50-8	0.4000%	0.0004%	
7	Resistive Ink	Ink	0.0008	Aluminum oxide	1344-28-1	3.0000%	0.0013%	0.0441%
				Quartz	14808-60-7	1.0000%	0.0004%	
				Ceramic w/o Declarable	66402-68-4	11.0000%	0.0048%	
				Titanium-dioxide	13463-67-7	1.0000%	0.0004%	
				Zinc oxide	1314-13-2	0.5000%	0.0002%	
				Silicon dioxide	7631-86-9	14.5000%	0.0064%	
				Palladium	7440-05-3	11.0000%	0.0048%	
				Silver	7440-22-4	8.0000%	0.0035%	
				Copper	7440-50-8	1.0000%	0.0004%	
				Glass w/o Declarable	65997-17-3	19.0000%	0.0084%	
				Lead in Glass	7439-92-1	19.0000%	0.0084%	
				Ruthenium (IV) oxide	12036-10-1	11.0000%	0.0048%	
8	Encapsulant Glaze Ink	Ink	0.0005	Glass without declarable substances	65997-17-3	98.0000%	0.0270%	0.0275%
				Pigment Green 17 (C.I.)	1308-38-9	2.0000%	0.0006%	
		Total Weight	**1.8149**					

This Document was updated on: 11/11/2025

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, and some Homogeneous material might not be present.

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