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AMD

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100% Material Declaration Data Sheet for XQZU19EG-FFRB1517

Average Weight : 19.9196 g

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight (in grams)	Component % of total
Silicon die 1					**0.724022**	**3.635%**
	Silicon	7440-21-3	100.00	basis	0.724022	
Bump					**0.021140**	**0.106%**
	Tin	7440-31-5	98.20	basis	0.020759	
	Silver	7440-22-4	1.80	basis	0.000381	
Underfill					**0.085500**	**0.429%**
	Bisphenol F type liquid epoxy resin	9003-36-5	15.00	basis	0.012825	
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.008550	
	Bisphenol A type liquid epoxy resin	25068-38-6	5.00	basis	0.004275	
	Amine type hardener	trade secret	10.00	basis	0.008550	
	Silicon dioxide	60676-86-0	58.00	filler	0.049590	
	Carbon black	1333-86-4	1.00	color agent	0.000855	
	Additives	trade secret	1.00	additives	0.000855	
Solder paste					**0.012032**	**0.060%**
	Tin	7440-31-5	54.50	metal	0.006557	
	Lead	7439-92-1	33.00	metal	0.003971	
	Organic amine	trade secret	4.90	metal	0.000590	
	Solvent	trade secret	4.90	flux	0.000590	
	Copolymer	trade secret	2.70		0.000325	
Capacitor 1					**0.323360**	**1.623%**
	Barium	12047-27-7	88.86	Ceramic	0.287328	
	Manganese	1313-13-9	1.43	Ceramic	0.004619	
	Nickel	7440-02-0	4.29	Internal Electrode	0.013858	
	Copper	7440-50-8	0.70	Termination	0.002264	
	Boron	1303-86-2	0.01	Termination	0.000046	
	Nickel	7440-02-0	3.57	Plating	0.011549	
	Tin	7440-31-5	0.90	Plating	0.002910	
	Lead	7439-92-1	0.24	Plating	0.000785	
Heat sink					**10.440000**	**52.411%**
	Copper	7440-50-8	98.35	Main material	10.267740	
	Nickel	7440-02-0	1.65	Main material	0.172260	
Heat sink TIM					**0.225000**	**1.130%**
	Aluminium Oxide Al2O3	trade secret	80.00	Main material	0.180000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.045000	
Heat sink adhesive					**0.025000**	**0.126%**
	Aluminium Oxide Al2O3	trade secret	80.00	Main material	0.020000	
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.005000	
Solder ball					**1.443876**	**7.249%**
	Tin	7440-31-5	63.00	Main material	0.909642	
	Lead	7439-92-1	37.00	Main material	0.534234	
Substrate					**6.619665**	**33.232%**
	Copper	7440-50-8	56.64	Plating	3.749365	
	Tin	7440-31-5	0.62	Plating	0.041167	
	Silver	7440-22-4	0.02	Plating	0.001280	
	Core	N/A	23.49	Core	1.555200	
	Plugging	N/A	0.54	Via	0.035456	
	ABF	N/A	17.4	Build Up	1.152000	
	Solder Mask	N/A	1.29	Solder Mask	0.085197	

Revision History

Date	Version	Description of Revisions
12/16/2025	1.0	Initial AMD Release.

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