Product Document

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ams OSRAM Group

Material Declaration Form

ams AG
Tobelbader Strasse 30
A-8141 Premstaetten, Austria
Tel +43 (0) 3136 500-0

Ordering Code	Package Family	Assembly Material Number	Lead Count	Weight (mg)	Manufacturing Country	Halogen Free	EU RoHS	China RoHS	Release Status	Version
AS3701B-BWLM-02	WLCSP	193720021	20	5.32	Philippines	YES	YES	YES	PROTOS	1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
IC	3.7	Si	Silicon	100.00	7440-21-3	3.69684	69.45514	694551
		Subtotal:		**100.00**		**3.69684**	**69.45514**	**694551**
PBO 1	0.03	BLO (1-10)	Gamma Butyrolactone	50.00	96-48-0	0.01548	0.29083	2908
			Polyamide	50.00	63428-83-1	0.01548	0.29083	2908
		Subtotal:		**100.00**		**0.03096**	**0.58167**	**5817**
PBO 2	0.03	BLO (1-10)	Gamma Butyrolactone	50.00	96-48-0	0.01364	0.25617	2562
			Polyamide	50.00	63428-83-1	0.01364	0.25617	2562
		Subtotal:		**100.00**		**0.02727**	**0.51234**	**5123**
UBM Seed Layer TiW	0	Ti	Titanium	10.00	7440-32-6	0.00010	0.00192	19
		W	Tungsten	90.00	7440-33-7	0.00092	0.01725	172
		Subtotal:		**100.00**		**0.00102**	**0.01916**	**192**
UBM Seed Layer Cu	0	Cu	Copper	100.00	7440-50-8	0.00157	0.02950	295
		Subtotal:		**100.00**		**0.00157**	**0.02950**	**295**
UBM Cu	0.07	Cu	Copper	100.00	7440-50-8	0.07062	1.32679	13268
		Subtotal:		**100.00**		**0.07062**	**1.32679**	**13268**
RDL Seed Layer TiW	0	Ti	Titanium	10.00	7440-32-6	0.00036	0.00680	68
		W	Tungsten	90.00	7440-33-7	0.00326	0.06121	612
		Subtotal:		**100.00**		**0.00362**	**0.06801**	**680**
RDL Seed Layer Cu	0.01	Cu	Copper	100.00	7440-50-8	0.00559	0.10502	1050
		Subtotal:		**100.00**		**0.00559**	**0.10502**	**1050**

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Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
RDL Cu	0.11	Cu	Copper	100.00	7440-50-8	0.11185	2.10140	21014
		Subtotal:		**100.00**		**0.11185**	**2.10140**	**21014**
Solder Balls	1.22	Ag	Silver	4.00	7440-22-4	0.04880	0.91684	9168
		Cu	Copper	0.50	7440-50-8	0.00610	0.11460	1146
		Sn	Tin	95.50	7440-31-5	1.16510	21.88955	218896
		Subtotal:		**100.00**		**1.22000**	**22.92100**	**229210**
Laminate	0.15	SiO2	Silica	20.00	7631-86-9	0.03066	0.57599	5760
			Carbon Black	0.30	1333-86-4	0.00046	0.00864	86
			Phenol/ formaldehyde/ epichloronhydrin copolymer	5.70	9003-36-5	0.00874	0.16416	1642
			Polyethylene terephthalate	74.00	25038-59-9	0.11343	2.13118	21312
		Subtotal:		**100.00**		**0.15329**	**2.87997**	**28800**
Total:	**5.32**					**5.32**	**100.00000**	**1000000**

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