

Material Declaration Form

Page 1

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



Ordering Code	Production Version	Package Family	Assembly Material Number	Lead Count	Weight (mg)	Manufacturing Country	Halogen Free	EU RoHS	China Rohs	Release Status	Report Version
AS6221-AWLT-L	Supplier 1	WLCSP	505430037	6	2.15	Philippines	YES	YES	YES	FULL	1

Production Version: Supplier 1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
PBO 1	0.08	BLO (1-10)	Gamma Butyrolactone	0.05	96-48-0	0.00004	0.00177	18
			Polyamide	99.95	63428-83-1	0.07629	3.54762	35476
Subtotal:				100.00		0.07633	3.54939	35494
PBO 2	0.08	BLO (1-10)	Gamma Butyrolactone	0.05	96-48-0	0.00004	0.00175	18
			Polyamide	99.95	63428-83-1	0.07535	3.50393	35039
Subtotal:				100.00		0.07539	3.50568	35057
RDL Seed Layer TiW	0	Ti	Titanium	10.00	7440-32-6	0.00012	0.00553	55
			W	90.00	7440-33-7	0.00107	0.04980	498
Subtotal:				100.00		0.00119	0.05534	553
RDL Seed Layer Cu	0	Cu	Copper	100.00	7440-50-8	0.00137	0.06371	637
Subtotal:				100.00		0.00137	0.06371	637
RDL Cu	0.03	Cu	Copper	100.00	7440-50-8	0.02744	1.27598	12760
Subtotal:				100.00		0.02744	1.27598	12760
UBM Seed Layer TiW	0	Ti	Titanium	10.00	7440-32-6	0.00004	0.00186	19
			W	90.00	7440-33-7	0.00036	0.01674	167
Subtotal:				100.00		0.00040	0.01860	186
UBM Seed Layer Cu	0	Cu	Copper	100.00	7440-50-8	0.00046	0.02139	214
Subtotal:				100.00		0.00046	0.02139	214

The information provided in this statement represents our knowledge and belief as of the date that it is provided. We base our knowledge and belief on information provided by third parties and make no representation or warranty as to the accuracy and shall have no liability for the consequences of use of such information. We have taken and continue to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. We and our suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

Material Declaration Form



Ordering Code	Production Version	Package Family	Assembly Material Number	Lead Count	Weight (mg)	Manufacturing Country	Halogen Free	EU RoHS	China Rohs	Release Status	Report Version
AS6221-AWLT-L	Supplier 1	WLCSP	505430037	6	2.15	Philippines	YES	YES	YES	FULL	1

Production Version: Supplier 1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
UBM Cu	0.02	Cu	Copper	100.00	7440-50-8	0.02091	0.97233	9723
Subtotal:				100.00		0.02091	0.97233	9723
IC	1.52	Si	Silicon	100.00	7440-21-3	1.51743	70.56140	705614
Subtotal:				100.00		1.51743	70.56140	705614
Laminate	0.06	10H13ClO3	Phenol/ formaldehyde/ epichloronhydrin copolymer	5.70	9003-36-5	0.00362	0.16855	1685
		SiO2	Silica	20.00	7631-86-9	0.01272	0.59139	5914
			Carbon Black	0.30	1333-86-4	0.00019	0.00887	89
			Polyethylene terephthalate	74.00	25038-59-9	0.04706	2.18816	21882
Subtotal:				100.00		0.06359	2.95697	29570
Solder Balls	0.37	Ag	Silver	4.00	7440-22-4	0.01464	0.68077	6808
		Cu	Copper	0.50	7440-50-8	0.00183	0.08510	851
		Sn	Tin	95.50	7440-31-5	0.34953	16.25335	162534
Subtotal:				100.00		0.36600	17.01922	170192
Total:	2.15					2.15	100.00000	1000000

The information provided in this statement represents our knowledge and belief as of the date that it is provided. We base our knowledge and belief on information provided by third parties and make no representation or warranty as to the accuracy and shall have no liability for the consequences of use of such information. We have taken and continue to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. We and our suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.