



Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D * : Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-11-29
Company Unique ID	NL 008751171B01		
Contact Name *	Floriana SAN BIAGIO	Contact Title	AMS IMD Champion
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard

Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	APE0*F1742C9	A	Z6RA	2018-11-29
	Amount	UoM	Unit type	ST ECOPACK Grade
	6.79	mg	Each	ECOPACK® 3
Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony			

Manufacturing information			
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	
1	260	3	
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment
SACN125	Not Applicable	Not Applicable	



Package Designator	Size	Nbr of instances	Shape
WAFER	2.7x2.5	N/A	flat
Comment	01C1 WLCSP MSL1; MDF valid for BLUENRG-234		

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption id.	Description

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	TRUE
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)	FALSE
Exemption id.	Description

QueryList : REACH- 27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Homogeneous Material (mg)	Application - Homogeneous Material	ppm in Homogeneous Material

Material Composition Declaration						MR Item Name	APE0*F1742C9		1.1.1.1		1.1.1.1	1.1.1.1				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Die	M-011 Other inorganic materials	6.147	mg	supplier	die	Silicon (Si)	7440-21-3		4.887	mg	795022	719735				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.011	mg	1789.5	1620				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.1	mg	16268.1	14728				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.032	mg	5205.8	4713				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.001	mg	162.7	147				
				supplier	metallisation	Tungsten (W)	7440-33-7		0.001	mg	162.7	147				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.026	mg	4229.7	3829				
				supplier	passivation	Silicon Oxide	7631-86-9		0.065	mg	10574.3	9573				
				supplier	UBM	Copper (Cu)	7440-50-8		0.027	mg	4392.4	3976				
				supplier	UBM	Titanium (Ti)	7440-32-6		0.001	mg	162.7	147				
				supplier	bumps	Tin (Sn)	7440-31-5		0.978	mg	159102	144035				
				supplier	bumps	Silver (Ag)	7440-22-4		0.012	mg	1962.2	1767				
				supplier	bumps	Copper (Cu)	7440-50-8		0.005	mg	813.4	736				
				supplier	bumps	Nickel (Ni)	7440-02-0		0.001	mg	162.7	147				
				Underfill	M-015 Other organic materials	0.642	mg	supplier	resin	Silica vitreous	60676-86-0		0.312	mg	485961	45950
								supplier	resin	Epoxy type resin	proprietary		0.112	mg	174465	16495
								supplier	resin	Acrylic type polymer	proprietary		0.112	mg	174465	16495
								supplier	resin	Blaphenol A diglycidyl ether	25036-25-3		0.039	mg	60748	5744
								supplier	resin	Carbon black	1333-86-4		0.003	mg	4673	442
								supplier	resin	Iron compound	7439-89-6		0.032	mg	49844	4713
supplier	resin	Zinc compound	7440-66-6						0.032	mg	49844	4713				