



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2015-01-30
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Emilio Castelli	Representative Title	APG MD CHAMPION
Representative Phone *	Refer to "Supplier Comment" section	Representative Email *	Refer to "Supplier Comment" section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/online_tech_support.html		

Uncertainty Statement

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.


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
SPC564L54L3BCFQR	B91L*FL60CCQ	A	MA1A	2015-01-30
	Amount	UoM	Unit type	ST ECOPACK Grade
	681.44	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	14x14x1.4	100	flat	
Comment				

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-16th June 2014				
Query				Response
The product 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

Material Composition Declaration						Mfr Item Name	B91L*FL60CCQ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies	Other inorganic materials	40.386	mg	supplier	die	Silicon (Si)	7440-21-3		33.305	mg	824667	48874
Die or Dies				supplier	metallization	Aluminium (Al)	7429-90-5		0.123	mg	3046	181
Die or Dies				supplier	metallization	Copper (Cu)	7440-50-8		0.803	mg	19883	1178
Die or Dies				supplier	metallization	Tantalum (Ta)	7440-25-7		5.156	mg	127668	7566
Die or Dies				supplier	metallization	Cobalt (Co)	7440-48-4		0.003	mg	74	4
Die or Dies				supplier	metallization	Tungsten (W)	7440-33-7		0.360	mg	8914	528
Die or Dies				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.094	mg	2328	138
Die or Dies				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.271	mg	6710	398
Die or Dies				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.271	mg	6710	398
Leadframe	Copper & Its alloys	183.640	mg	supplier	alloy	Copper (Cu)	7440-50-8		171.333	mg	932983	251428
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		5.343	mg	29095	7841
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.267	mg	1454	392
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		1.158	mg	6306	1699
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		5.539	mg	30162	8128
Die attach		6.753	mg	supplier	glue or tape	Isobornyl Methacrylate	7534-94-3		0.371	mg	54939	544
Die attach				#N/A	glue or tape	Bismaleimide resin	Proprietary		0.270	mg	39982	396
Die attach				#N/A	glue or tape	spacer polymer	Proprietary		0.034	mg	5035	50
Die attach				supplier	glue or tape	Silver (Ag)	7440-22-4		6.078	mg	900044	8919
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		0.773	mg	980964	1134
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.014	mg	17766	21
Bonding wire				supplier	wire	Silver (Ag)	7440-22-4		0.001	mg	1269	1
encapsulation		443.926	mg	#N/A	mold compound	Epoxy Resin	Proprietary		32.483	mg	73172	47668
encapsulation				#N/A	mold compound	Phenol Resin	Proprietary		32.483	mg	73172	47668
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		374.196	mg	842924	549125
encapsulation				supplier	mold compound	Quartz	14808-60-7		1.299	mg	2926	1906
encapsulation				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		2.166	mg	4879	3179
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.299	mg	2926	1906
connections coating	Solder	5.748	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.748	mg	1000000	8435