



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-05-24
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 *	MD CHAMPION NAME	Representative Title	Group MD CHAMPION (CSD Materials Declaration 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
SPC560P60L5CEAAR	E91A*FP60ABQ	A	MA1A	2016-05-24
Amount	UoM	Unit type	ST ECOPACK Grade	
1315.00	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	20x20x1.4	144	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-17th Dec 2015				
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	E91A*FP60ABQ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	23.103	mg	supplier	die	Silicon (Si)	7440-21-3		20.047	mg	867723	15245
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.037	mg	1602	28
Die				supplier	metallization	Copper (Cu)	7440-50-8		0.329	mg	14241	250
Die				supplier	metallization	Tantalum (Ta)	7440-25-7		2.385	mg	103233	1814
Die				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	43	1
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	173	3
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	130	2
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.084	mg	3636	64
Die				supplier	passivation	Silicon Oxide (SiO2)	7631-86-9		0.213	mg	9220	162
Leadframe	Copper & its alloys	309.587	mg	supplier	alloy	Copper (Cu)	7440-50-8		299.592	mg	967715	227827
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		7.046	mg	22759	5358
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.424	mg	1370	322
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.369	mg	1192	281
Leadframe				supplier	tape	poly(4,4'-oxydiphenylene-pyromellitimide)	25036-53-7		0.078	mg	252	59
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		2.078	mg	6712	1580
Die attach		4.316	mg	supplier	Glue	Silver (Ag)	7440-22-4		3.399	mg	787535	2585
Die attach				supplier	Glue	Urethane acrylate oligomer	na		0.302	mg	69972	230
Die attach				supplier	Glue	Methacrylate	na		0.302	mg	69972	230
Die attach				supplier	Glue	Acrylate	na		0.302	mg	69972	230
Die attach				SVHC	Glue	NMP	872-50-4		0.011	mg	2549	8
Bonding wire				supplier	wire	Copper (Cu)	7440-50-8		1.039	mg	980189	790
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.019	mg	17925	14
Bonding wire				supplier	wire	Silver (Ag)	7440-22-4		0.002	mg	1887	2
encapsulation		968.459	mg	supplier	mold compound	Epoxy Resin	Proprietary		70.863	mg	73171	53888
encapsulation				supplier	mold compound	Phenol Resin	Proprietary		70.863	mg	73171	53888
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		816.339	mg	842926	620790
encapsulation				supplier	mold compound	Quartz	14808-60-7		2.835	mg	2927	2156
encapsulation				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		4.724	mg	4878	3592
encapsulation				supplier	mold compound	Carbon black	1333-86-4		2.835	mg	2927	2156
connections coating	Solder	8.022	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		8.022	mg	1000000	6100