



## Materials Declaration Form

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

*\* : Required Field*


Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-08-04
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacopello	<b>Representative Title</b>	ADG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
A1C15S12M3-F	PC44*KLJFCTC	A	CT2A	2016-08-04
	Amount	UoM	Unit type	ST ECOPACK Grade
	24676.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Not Applicable	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
Mounted BOARD	48 - 35 - 10	23	pin	
Comment	Package: ACEPACK 1			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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 : REACH-20th June 2016				
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

Material Composition Declaration :						Mfr Item Name	PC44*KLJFCTC					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	86.543	mg	supplier	die	Silicon (Si)	7440-21-3		79.153	mg	914609	3208
				supplier	metallization	Aluminium (Al)	7429-90-5		3.023	mg	34931	123
				supplier	Passivation	Silicon Nitride	12033-89-5		0.417	mg	4818	17
				supplier	Passivation	Silicon Oxide	7631-86-9		1.336	mg	15437	54
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.142	mg	1641	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.299	mg	3455	12
				supplier	back side metallization	Nickel (Ni)	7440-02-0		1.921	mg	22197	78
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.039	mg	451	2
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.213	mg	2461	9
				DBC	Copper & its alloys	8489.990	mg	supplier	Ceramic	Alumina	1344-28-1	
supplier	metallization	Copper (Cu)	7440-50-8						6633.123	mg	781287	268809
NTC	Other inorganic materials	9.245	mg	supplier	Ceramics	Manganese oxide	1313-13-9		3.179	mg	343862	129
				supplier	Ceramics	Nickel oxide	1313-99-1		1.467	mg	158680	59
				supplier	Ceramics	Iron(III) oxide	1309-37-1		1.549	mg	167550	63
				supplier	Ceramics	Cobalt oxide (Co3O4)	1308-06-1		1.549	mg	167550	63
				supplier	Ceramics	Aluminium oxide	1344-28-1		0.408	mg	44132	17
				supplier	metallization	Nickel (Ni)	7440-02-0		0.060	mg	6490	2
				supplier	metallization	Tin (Sn)	7440-31-5		0.180	mg	19470	7
				supplier	metallization	Palladium (Pd)	7440-05-3		0.199	mg	21525	8
				supplier	metallization	Silver (Ag)	7440-22-4		0.618	mg	66847	25
				SVHC	Glass	diboron trioxide; bor	1303-86-2		0.009	mg	973	0
supplier	Glass	silicon dioxide	7631-86-9		0.027	mg	2921	1				
Pin holder	Other inorganic materials	257.922	mg	supplier	alloy	Copper (Cu)	7440-50-8		242.447	mg	940001	9825
				supplier	alloy	Tin (Sn)	7440-31-5		15.475	mg	59999	627
Pin	Other inorganic materials	957.656	mg	supplier	glue or tape (choose)	Copper (Cu)	7440-50-8		900.197	mg	940000	36481
				supplier	glue or tape	Tin (Sn)	7440-31-5		57.459	mg	60000	2329
Die attach 2	Other inorganic materials	1.357	mg	supplier	glue or tape	Silicone adhesive	proprietary		1.357	mg	1000000	55
Soft solder		17.383	mg	supplier	solder	Tin (Sn)	7440-31-5		16.773	mg	964908	680
				supplier	solder	Silver (Ag)	7440-22-4		0.608	mg	34977	25
				JIG - R	solder	Lead (Pb)	7439-92-1		0.002	mg	115	0
Bonding wires		191.204	mg	supplier	wire	Aluminium (Al)	7429-90-5		191.204	mg	1000000	7749
Underfill	Other Organic Materials	1499.700	mg	supplier	resin	silicon gel A	proprietary		749.850	mg	500000	30388
				supplier	resin	silicon gel B	proprietary		749.850	mg	500000	30388
Housing	Other Organic Materials	13165.000	mg	supplier	mold compound	Polyethylene terephthalate	25038-59-9		11533.650	mg	876084	467404
				supplier	mold compound	Iron (Fe)	7439-89-6		1158.258	mg	87980	46939
				supplier	mold compound	Chromium (Cr)	7440-47-3		293.643	mg	22305	11900
				supplier	mold compound	Nickel (Ni)	7440-02-0		130.508	mg	9913	5289
				supplier	mold compound	Manganese (Mn)	7439-96-5		30.996	mg	2354	1256
				supplier	mold compound	Silicium (Si)	7440-21-3		16.314	mg	1239	661
				supplier	mold compound	Carbon (C)	7440-44-0		1.631	mg	125	66