




## 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
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-03-05
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	MDG MD CHAMPION	<b>Representative Title</b>	MDG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section		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	
<p>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.</p>	
Legal Statement	
<b>Supplier Acceptance *</b>	<div style="display: flex; justify-content: space-between;"> <span>true</span> <span><b>Legal Declaration *</b></span> <span>Standard</span> </div>
<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
STM32F071C8T6	E45B*448XXX1	B	9991	2018-03-05
	Amount	UoM	Unit type	ST ECOPACK Grade
	180.00	mg	Each	ECOPACK® 2
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)		

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	
Tin	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7x7x1.4	48	L Bend	
Comment	Package : 5B LQFP 48 7x7x1.4 1 0110596			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : REACH-12th January 2017				
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	E45B*448XXX1				6001500.0	998577.5
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)
Die or dies	M-011 Other inorganic materials	9.639	mg	supplier	die	Silicon (Si)	7440-21-3		9.244	mg	959021	51356
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	2801	150
				supplier	metallization	Copper (Cu)	7440-50-8		0.134	mg	13902	744
				supplier	metallization	Cobalt (Co)	7440-48-4		0.025	mg	2594	139
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	726	39
				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	1556	83
				supplier	Passivation	Silicon Nitride	12033-89-5		0.018	mg	1867	100
				supplier	Passivation	Silicon Oxide	7631-86-9		0.169	mg	17533	939
Sumitomo G631SH	M-011 Other inorganic materials	100.000	mg	supplier	Molding Compound	Epoxy Resin A	Proprietary		1.000	mg	10000	5556
				supplier	Molding Compound	Epoxy Resin B	Proprietary		1.000	mg	10000	5556
				supplier	Molding Compound	Phenol Resin	Proprietary		2.300	mg	23000	12778
				supplier	Molding Compound	Carbon Black	1333-86-4		0.300	mg	3000	1667
				supplier	Molding Compound	Silica Fused	60676-86-0		80.000	mg	800000	444444
				supplier	Molding Compound	Silica Fused	7631-86-9		15.000	mg	150000	83333
				supplier	Molding Compound	Silica, crystalline *	14808-60-7		0.400	mg	4000	2222
Leadframe	M-011 Other inorganic materials	62.256	mg	supplier	Leadframe	Nickel	7440-02-0		1.915	mg	30880	10636
				supplier	Leadframe	Silicon	7440-21-3		0.403	mg	6500	2239
				supplier	Leadframe	Magnesium	7439-95-4		0.097	mg	1565	539
				supplier	Leadframe	Silver	7440-22-4		3.906	mg	63000	21700
				supplier	Leadframe	Copper	7440-50-8		55.936	mg	898055	309330
				supplier	Leadframe	Silver Powder	7440-22-4		2.805	mg	850000	15583
Sumitomo CRM-1076WA	M-011 Other inorganic materials	3.305	mg	supplier	Epoxy	Epoxy Resin A	9003-36-5		0.182	mg	55000	1008
				supplier	Epoxy	Epoxy Resin B	Proprietary		0.099	mg	30000	550
				supplier	Epoxy	Diluent A	Proprietary		0.033	mg	10000	183
				supplier	Epoxy	Diluent B	Proprietary		0.099	mg	30000	550
				supplier	Epoxy	Hardener	Proprietary		0.066	mg	20000	367
				supplier	Epoxy	Dicyandiamide	461-58-5		0.008	mg	2500	46
				supplier	Epoxy	Organic peroxide	Proprietary		0.013	mg	4000	73
Wire	M-011 Other inorganic materials	0.400	mg	supplier	Wire	Gold	7440-57-5		0.400	mg	1000000	2222
Matte Sn	M-011 Other inorganic materials	4.400	mg	supplier	Matte Sn	Tin(Sn)	7440-31-5		4.400	mg	1000000	24444