



## Materials Declaration Form


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

\*: Required Field

<b>Supplier Information</b>			
Company Name *	STMicroelectronics	Response Date *	15-05-2019
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	Representative Title	MDG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	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>		

<b>Uncertainty Statement</b>	
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<b>Legal Statement</b>	
Supplier Acceptance *	true
Legal Declaration *	Standard
Legal Statement	<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
STM32F303VEH7 STM32F303VEH7TR	P4MJ*446XXXY	A	9996	15-05-2019
	Amount	UoM	Unit type	ST ECOPACK Grade
	64.00	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	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	7x7x0.6	100	No lead	
Comment	Package : A0C2 UFBGA 7x7x0.60 100L R12sq P0.5 8219030			

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-15th January 2019				
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	P4MJ*446XXX				6000000.0	999998.0				
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	5.190	mg	supplier	die	Silicon (Si)	7440-21-3		4.257	mg	822158	66672				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.063	mg	12139	984				
				supplier	metallization	Copper (Cu)	7440-50-8		0.313	mg	60308	4891				
				supplier	metallization	Cobalt (Co)	7440-48-4		0.058	mg	11175	906				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.017	mg	3276	266				
				supplier	metallization	Tungsten (W)	7440-33-7		0.034	mg	6551	531				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.041	mg	7900	641				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.397	mg	76493	6203				
				SUBSTRATE	M-011 Other inorganic materials	24.361	mg	supplier	CORE	Organic resin	Proprietary		1.654	mg	67895	25844
								supplier	CORE	Other inorganic filler	Proprietary		1.869	mg	76721	29203
supplier	CORE	Glass fiber	65997-17-3						3.667	mg	150527	57297				
supplier	SOLDERMASK	Organic resin	Proprietary						3.802	mg	156069	59406				
supplier	SOLDERMASK	Inorganic filler	Proprietary						2.047	mg	84028	31984				
supplier	CU FOIL	Copper (Cu)	7440-50-8						8.098	mg	332417	126531				
supplier	PLATING	Nickel (Ni)	7440-02-0						2.796	mg	114774	43688				
supplier	PLATING	Gold (Au)	7440-57-5						0.428	mg	17569	6688				
DIE ATTACH	M-011 Other inorganic materials	0.551	mg	supplier	GLUE	Butadiene, acrylonitrile polymer, carboxy-tern	68610-41-3		0.330	mg	598911	5156				
				supplier	GLUE	Phenol polymer with formaldehyde, glycidyl e	9003-35-4		0.055	mg	99819	859				
				supplier	GLUE	Phenol-formaldehyde polymer	28064-14-4		0.055	mg	99819	859				
				supplier	GLUE	Dapsone	80-08-0		0.055	mg	99819	859				
				supplier	GLUE	Reaction product: bisphenol-A- (epichlorhydrin	25068-38-6		0.006	mg	10889	94				
				supplier	GLUE	Other Substances	Proprietary		0.050	mg	90744	781				
BONDING WIRE	M-011 Other inorganic materials	1.047	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.047	mg	1000000	16359				
SOLDERBALL	M-011 Other inorganic materials	3.109	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		3.000	mg	964940	46875				
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.109	mg	35060	1703				
ENCAPSULATION	M-011 Other inorganic materials	29.742	mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		25.921	mg	872866	405015				
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		2.824	mg	93961	44125				
				supplier	MOLDING COMPOUND	Phenolic Resins	Proprietary		0.831	mg	27649	12984				
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.166	mg	5523	2594				