



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 *	29-09-2017
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 : http://www.st.com/web/en/support/support.html		

Uncertainty Statement	
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Legal Statement	
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
STM32F103VDH6 STM32F103VDH6TR	S1H0*414XXXX	A	998Z	29-09-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	214.80	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	10x10x1.7	144	No lead	
Comment	Package : H0 LFBGA 10x10x1.7 100 F10x10 0.8 7427487			

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	S1H0*414XXXX				5999999.0	1000000.0
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	13.824	mg	supplier	die	Silicon (Si)	7440-21-3		13.067	mg	945240	60834
				supplier	metallization	Aluminium (Al)	7429-90-5		0.051	mg	3689	237
				supplier	metallization	Copper (Cu)	7440-50-8		0.257	mg	18591	1196
				supplier	metallization	Cobalt (Co)	7440-48-4		0.048	mg	3472	223
				supplier	metallization	Titanium (Ti)	7440-32-6		0.014	mg	1013	65
				supplier	metallization	Tungsten (W)	7440-33-7		0.028	mg	2025	130
				supplier	Passivation	Silicon Nitride	12033-89-5		0.034	mg	2459	158
				supplier	Passivation	Silicon Oxide	7631-86-9		0.325	mg	23510	1513
				supplier	Glass	Silica, amorphous, fused	60676-86-0		0.415	mg	482955	1930
Die Attach Epoxy_ABLEBOND 2025D	M-011 Other inorganic materials	0.859	mg	Supplier	Plastics/polymers	Bismaleimide Monomer	TS ref# 10049		0.268	mg	312500	1249
				Supplier	Plastics/polymers	Acrylate monomer	TS ref# 10050		0.073	mg	85227	341
				Supplier	Plastics/polymers	Epoxy resin	TS ref# 10042		0.073	mg	85227	341
				Supplier	Plastics/polymers	Acrylic resin	TS ref# 10051		0.029	mg	34091	136
				Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		2.338	mg	19836	10887
Mold Compound_EME-G770LC_Sumi	M-011 Other inorganic materials	116.637	mg	Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		2.338	mg	19836	10887
				Supplier	Plastics/polymers	Phenol Resin A	Proprietary		2.338	mg	19836	10887
				Supplier	Plastics/polymers	Phenol Resin B	Proprietary		2.338	mg	19836	10887
				Supplier	Plastics/polymers	Silica(Amorphous) A	60676-86-0		84.357	mg	726171	392731
				Supplier	Plastics/polymers	Silica(Amorphous) B	7631-86-9		19.944	mg	169180	92851
				Supplier	Plastics/polymers	Metal Hydroxide	Proprietary		2.338	mg	19836	10887
				Supplier	Additives	Carbon Black	1333-86-4		0.645	mg	5470	3002
				Supplier	Metals	Gold	7440-57-5		0.898	mg	1000000	4182
				Supplier	Metals	Tin	7440-31-5		23.930	mg	965000	111407
Wire_Wire AU 20um R_MKE	Bonding Wire	0.898	mg	Supplier	Metals	Silver	7440-22-4		0.744	mg	30000	3463
				Supplier	Metals	Copper	7440-50-8		0.124	mg	5000	577
Solder Ball_96.5SN/3AG/0.5CU 0.4M	Metals	24.798	mg	Supplier	Metals	Tin	7440-31-5		23.930	mg	965000	111407
				Supplier	Metals	Silver	7440-22-4		0.744	mg	30000	3463
				Supplier	Metals	Copper	7440-50-8		0.124	mg	5000	577
				Supplier	Soldermask	PAK resin (polyacrylate)	Proprietary		1.557	mg	26950	7250
				Supplier	Soldermask	Epoxy resin	Proprietary		0.779	mg	13481	3626
				Supplier	Soldermask	Phthalocyanine blue	147-14-8		0.017	mg	293	79
				Supplier	Soldermask	Organic pigment	Proprietary		0.017	mg	293	79
				Supplier	Soldermask	Barium sulfate	7727-43-7		1.357	mg	23481	6316
				Supplier	Soldermask	Talc containing no asbestiform fibers	14807-96-6		0.308	mg	5336	1435
				Supplier	Soldermask	Silica, amorphous Ⓜ	7631-86-9		0.035	mg	598	161
				Supplier	Soldermask	Antifoamer & Leveling agent	Proprietary		0.097	mg	1673	450
				Supplier	Core	Cured thermosetting resin (including inorganic)	65997-17-3		20.642	mg	357246	96099
				Supplier	Core	Continuous Filament Fiber Glass	Trade Secret		3.308	mg	57246	15399
				Supplier	Core	Copper Foil	7440-50-8		12.013	mg	207907	55927
				Supplier	Copper plating	Copper	7440-50-8		16.892	mg	292353	78643
				Supplier	Finishing	Nickel	7440-02-0		0.672	mg	11629	3128
				Supplier	Finishing	Gold	7440-57-5		0.087	mg	1513	407