



## 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>	2018-06-13
<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	<b>Contact Email *</b>	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

**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
STI47N60DM6AG	XTI7*PQ6LA62	A	3068	2018-06-13
Amount	UoM	Unit type	ST ECOPACK Grade	
1500.00	mg	Each	ECOPACK1	
	Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	4.5-10.2-10.55	2	Through-hole	
Comment	I2PAK			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8a	Lead in solders to attach electrical and electronic components to electronic circuit boards and lead in finishes on terminations of components other than electrolyte aluminium capacitors, on component pins and on electronic circuit boards

QueryList : California Prop65 list, dated 25th May 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.24	Die - Leadframe	162
Lead	19.57	Soft solder	13045
Antimony trioxide	10.51	Encapsulation	7007

QueryList : REACH-15th January 2018				
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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	X117*PQ6LA62					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	16.740	mg	supplier	die	Silicon (Si)	7440-21-3		16.216	mg	968698	10811
				supplier	metallization	Aluminium (Al)	7429-90-5		0.211	mg	12605	141
				supplier	Passivation	Silicon Oxide	7631-86-9		0.092	mg	5496	61
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.011	mg	656	7
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.155	mg	9259	103
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.055	mg	3286	37
Leadframe	M-004 Copper and its alloys	839.702	mg	supplier	alloy	Copper (Cu)	7440-50-8		838.515	mg	998586	559010
				supplier	alloy	Iron (Fe)	7439-89-6		0.840	mg	1000	560
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.252	mg	300	167
				supplier	metallization	Nickel (Ni)	7440-02-0		0.088	mg	105	59
				supplier	metallization	Phosphorus (P)	7723-14-0		0.007	mg	9	5
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high mel	19.567	mg	955000	13045
Soft solder	Solder	20.489	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.512	mg	24989	341
				supplier	solder	Tin (Sn)	7440-31-5		0.410	mg	20011	273
				supplier	wire	Aluminium (Al)	7429-90-5		0.948	mg	995798	632
Bonding wires	M-003 Aluminum and its alloys	0.952	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	4202	3
				supplier	wire	Silica vitreous	60676-86-0		482.205	mg	779999	321470
Encapsulation	M-011 Other inorganic materials	618.212	mg	supplier	mold compound	Bisphenol F type epoxy resin	9003-36-5		58.730	mg	95000	39153
				supplier	mold compound	Phenol resin	9003-35-4		51.930	mg	84000	34620
				supplier	mold compound	Antimony Trioxide	1309-64-4		10.510	mg	17001	7007
				supplier	mold compound	Brominated flame retardant	Proprietary		9.273	mg	15000	6182
				supplier	mold compound	Silica Cristobalite	14464-46-1		3.091	mg	5000	2061
				supplier	mold compound	Carbon Black	1333-86-4		2.473	mg	4000	1649
connections coating	Solder	3.905	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.905	mg	1000000	2603