



## 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>	2016-08-25
<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

**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
STF20N60M2-EP	TSFP*EQ6GB62	A	SHENZHEN B/E	2016-08-25
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2

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

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-16.15-4.5	3	THROUGH HOLE	
Comment	TO 220 ISO FULL PACK IN LINE			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	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 : 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	TSFP*EQ6B62					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	8.361	mg	supplier	die	Silicon (Si)	7440-21-3		8.023	mg	959574	4223
				supplier	metallization	Aluminium (Al)	7429-90-5		0.162	mg	19376	85
				supplier	Passivation	Silicon Nitride	12033-89-5		0.039	mg	4665	21
				supplier	Passivation	Silicon Oxide	7631-86-9		0.057	mg	6817	30
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	478	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.056	mg	6698	29
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.020	mg	2392	11
Leadframe	Copper & its alloys	614.127	mg	supplier	alloy	Copper (Cu)	7440-50-8		604.469	mg	984274	318142
				supplier	alloy	Iron (Fe)	7439-89-6		0.605	mg	985	318
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	296	96
				supplier	metallization	Nickel (Ni)	7440-02-0		8.816	mg	14355	4640
				supplier	metallization	Phosphorus (P)	12185-10-3		0.055	mg	90	29
Soft solder	Solder	7.759	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.410	mg	955020	3900
				supplier	solder	Silver (Ag)	7440-22-4		0.194	mg	25003	102
				supplier	solder	Tin (Sn)	7440-31-5		0.155	mg	19977	82
Bonding wires	Other inorganic materials	0.780	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.776	mg	994999	408
				supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	5001	2
Encapsulation	Other Organic Materials	1263.107	mg	supplier	mold compound	Quartz	14808-60-7		884.175	mg	700000	465355
				supplier	mold compound	Silica, vitreous	60676-86-0		94.733	mg	75000	49859
				supplier	mold compound	Epoxy resin	25068-38-6		176.835	mg	140000	93071
				supplier	mold compound	phenol resin	29690-82-2		88.417	mg	70000	46535
					#N/A	mold compound	metal hydroxide	Proprietary		12.631	mg	10000
Connections coating	Solder	5.866	mg	supplier	mold compound	carbon black	1333-86-4		6.316	mg	5000	3324
				supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087