



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
<i>* : Required Field</i>			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-09-13
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	ADG 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

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
STF28N60DM2	TSFP*FQ66B62	A	SHENZHEN B/E	2016-09-13
	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*FQ6B62					
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	14.129	mg	supplier	die	Silicon (Si)	7440-21-3		13.559	mg	959660	7137
				supplier	metallization	Aluminium (Al)	7429-90-5		0.274	mg	19391	144
				supplier	Passivation	Silicon Nitride	12033-89-5		0.065	mg	4600	34
				supplier	Passivation	Silicon Oxide	7631-86-9		0.097	mg	6865	51
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	496	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.094	mg	6653	49
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.033	mg	2335	17
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	12.818	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	12.242	mg	955063	6443
				supplier	solder	Silver (Ag)	7440-22-4		0.320	mg	24965	168
				supplier	solder	Tin (Sn)	7440-31-5		0.256	mg	19972	137
Bonding wires	Other inorganic materials	1.084	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.080	mg	996402	568
				supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	3598	2
				supplier								
Encapsulation	Other Organic Materials	1251.976	mg	supplier	mold compound	Quartz	14808-60-7		876.383	mg	700000	461254
				supplier	mold compound	Silica, vitreous	60676-86-0		93.898	mg	75000	49420
				supplier	mold compound	Epoxy resin	25068-38-6		175.277	mg	140000	92251
				supplier	mold compound	phenol resin	29690-82-2		87.638	mg	70000	46125
				supplier	mold compound	metal hydroxide	21645-51-2		12.520	mg	10000	6589
				supplier	mold compound	carbon black	1333-86-4		6.260	mg	5000	3295
Connections coating	Solder	5.866	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087