



## 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>	2015-09-16
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	IPD 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
<b>Legal Statement</b>	<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
STW48N60DM2	TSLW*FQ6IB62	A	SHENZHEN B/E	2015-09-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	4430.00	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	15.75, 20.15, 5.15	2	THROUGH HOLE	
Comment	Package: TO 247			

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-15th June 2015				
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	TSLW*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 or Dies (choose)	Other inorganic materials	28.884	mg	supplier	die	Silicon (Si)	7440-21-3		27.717	mg	959597	6257
				supplier	metallization	Aluminium (Al)	7429-90-5		0.561	mg	19423	127
				supplier	Passivation	Silicon Nitride	12033-89-5		0.133	mg	4605	30
				supplier	Passivation	Silicon Oxide	7631-86-9		0.198	mg	6855	45
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.014	mg	485	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.193	mg	6682	44
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.068	mg	2354	15
Leadframe	Copper & its alloys	2720.611	mg	supplier	alloy	Copper (Cu)	7440-50-8		2705.048	mg	994280	610620
				supplier	alloy	Iron (Fe)	7439-89-6		1.246	mg	458	281
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.275	mg	836	514
				supplier	metallization	Nickel (Ni)	7440-02-0		11.968	mg	4399	2702
				supplier	metallization	Phosphorus (P)	12185-10-3		0.074	mg	27	17
Soft solder	Solder	25.617	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	24.465	mg	955030	5523
				supplier	solder	Silver (Ag)	7440-22-4		0.640	mg	24983	144
				supplier	solder	Tin (Sn)	7440-31-5		0.512	mg	19987	116
Bonding wires	Other inorganic materials	2.500	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.499	mg	999600	564
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	400	0
				supplier	mold compound	Silica, vitreous	60676-86-0		1432.186	mg	870000	323293
Encapsulation	Other Organic Materials	1646.191	mg	supplier	mold compound	Epoxy resin	25068-38-6		164.619	mg	100000	37160
				supplier	mold compound	Phenol resin	29690-82-2		41.155	mg	25000	9290
				supplier	mold compound	Carbon Black	1333-86-4		8.231	mg	5000	1858
Connections coating	Solder	6.197	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.197	mg	1000000	1399