



## 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>	2015-10-19
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	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 Giacobello	<b>Representative Title</b>	IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</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
	8HRH*TWB015G	A	ZA41	2015-10-19
Amount	UoM	Unit type	ST ECOPACK Grade	
400.00	mg	Each	ECOPACK® 2	

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	
Not Applicable ; if coating is used c	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
RAD	6.4 - 10.17 - 3.24	2	Through-hole	
Comment	Package: DO 15; MDF valid for BZW06-13B; P6KE15CA; P6KE15CARL			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
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-17th December 2014				
Query				Response
The product 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	8HRH*TWB015G						
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Silicon die	Other inorganic materials	1.842	mg	supplier	die	Silicon (Si)	7440-21-3		1.787	mg	970141	4468	
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.01	mg	5429	25	
Silicon die				supplier	metallization	Nickel (Ni)	7440-02-0		0.008	mg	4343	20	
Silicon die				supplier	metallization	Gold (Au)	7440-57-5		0.007	mg	3800	18	
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.01	mg	5429	25	
Silicon die				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.007	mg	3800	18	
Silicon die				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1086	5	
Silicon die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.011	mg	5972	28	
Leadframe	Copper & its alloys	286.358	mg	supplier	alloy	Copper (Cu)	7440-50-8		286.223	mg	999529	715558	
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.011	mg	38	28	
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.028	mg	98	70	
Leadframe				supplier	alloy	Phosphorus (P)	12185-10-3		0.096	mg	335	240	
Soft solder	Solder	4.79	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.43	mg	924843	11075	
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.24	mg	50104	600	
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.12	mg	25052	300	
encapsulation		103.018	mg	supplier	mold compound	Quartz	14808-60-7		80.354	mg	780000	200885	
encapsulation				supplier	mold compound	epoxy resin	29690-82-2		14.938	mg	145004	37345	
encapsulation				supplier	mold compound	phenol resin	9003-35-4		7.211	mg	69997	18028	
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.515	mg	4999	1288	
connections coating	Solder	3.992	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.992	mg	1000000	9980	