




## 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>	2016-01-26
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<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			
<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>			
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
STPS5L60SY	BNZK*Z72QD1U	A	ZA41	2016-01-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	250.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	4.5X2.16X3.68	1	J bend	
Comment	Package: SMC CLIP (SOD 15 NEW)			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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
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	BNZK*272QD1U					
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	3.596	mg	supplier	die	Silicon (Si)	7440-21-3		3.421	mg	951335	13684
				supplier	metallization	Aluminium (Al)	7429-90-5		0.021	mg	5840	84
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	835	12
				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	1390	20
				supplier	metallization	Nickel (Ni)	7440-02-0		0.015	mg	4171	60
				supplier	metallization	Gold (Au)	7440-57-5		0.015	mg	4171	60
				supplier	Passivation	Silicon Oxide	7631-86-9		0.021	mg	5840	84
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	556	8
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1390	20
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.023	mg	6396	92
				supplier	polymer die coating	Durimide	proprietary		0.065	mg	18076	260
				Leadframe & Clip	Copper and its alloy	89.062	mg	Supplier	alloy	Copper (Cu)	7440-50-8	
Supplier	alloy	Zinc (Zn)	7440-66-6						0.004	mg	45	16
Supplier	alloy	Iron (Fe)	7439-89-6						0.009	mg	101	36
Supplier	alloy	Phosphorus (P)	7723-14-0						0.030	mg	337	120
Die Attach	Solder	4.241	mg	JIG - R	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high met	3.923	mg	925018	15692
				Supplier	soft solder	Tin (Sn)	7440-31-5		0.212	mg	49988	848
				Supplier	soft solder	Silver (Ag)	7440-22-4		0.106	mg	24994	424
Encapsulation	Other organic material	150.980	mg	Supplier	Moulding Compound	Amorphous Silica	7631-86-9		92.702	mg	614002	370808
				Supplier	Moulding Compound	Quartz	14808-60-7		30.196	mg	200000	120784
				Supplier	Moulding Compound	epoxy resin	25068-38-6		18.117	mg	119996	72468
				Supplier	Moulding Compound	phenolic resin	29690-82-2		9.059	mg	60001	36236
				Supplier	Moulding Compound	Carbon black	1333-86-4		0.906	mg	6001	3624
Finishing	Solder	2.121	mg	supplier	connection coating	Tin (Sn)	7440-31-5		2.121	mg	1000000	8484