



## 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>	2015-09-04
<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
	HNPP*Z24Q81Y	A	ZA41	2015-09-04
Amount	UoM	Unit type	ST ECOPACK Grade	
340.00	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	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
AXL	5X7.5X2.37	2	Through-hole	
Comment	Package: DO 41 PLASTIC (MD valid for CPs: 1N5819 - 1N5819RL )			

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	HNPP*Z24Q81Y					
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	0.672	mg	supplier	die	Silicon (Si)	7440-21-3		0.639	mg	950893	1879
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	5952	12
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1488	3
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1488	3
				supplier	metallization	Nickel (Ni)	7440-02-0		0.003	mg	4464	9
				supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	4464	9
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	5952	12
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1488	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.004	mg	5952	12
				supplier	polymer die coating	Durimide	proprietary		0.012	mg	17857	35
				supplier	alloy	Copper (Cu)	7440-50-8		249.079	mg	999498	732244
Leadframe	Copper & its alloys	249.204	mg	supplier	alloy	Zinc (Zn)	7440-66-6		0.010	mg	40	29
				supplier	alloy	Iron (Fe)	7439-89-6		0.025	mg	100	74
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.090	mg	361	265
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.036	mg	925000	5985
Soft solder	Solder	2.201	mg	supplier	solder	Tin (Sn)	7440-31-5		0.055	mg	25000	162
				supplier	solder	Silver (Ag)	7440-22-4		0.110	mg	50000	324
				supplier	Moulding Compound	Silica fused(SiO2)	7631-86-9		30.402	mg	360035	89376
Encapsulation	Other inorganic materials	84.442	mg	supplier	Moulding Compound	silica quartz	14808-60-7		48.974	mg	579968	143974
				supplier	Moulding Compound	phenolic resin	9003-35-4		4.222	mg	49998	12412
				supplier	Moulding Compound	carbon black	1333-86-4		0.844	mg	10000	2482
				supplier	solder alloy	Tin (Sn)	7440-31-5		3.481	mg	1000000	10232
Connections coating	Solder	3.481	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		3.481	mg	1000000	10232