



## Materials Declaration Form

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

<b>Supplier Information</b>			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2018-01-26</b>
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Authorized Representative *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Rossana Bonaccorso</b>	<b>Representative Title</b>	<b>ADG MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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**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
STPSC20H12WL	H84Z*HC021T7	A	Z45A	2018-01-26
Amount	UoM	Unit type	ST ECOPACK Grade	
5800	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SIP	15.92 / 20.93 / 5.02	3	flat	
Comment	Package: DO247 LONG LEADS			

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	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.87	Die / Leadframe	150

QueryList : REACH-15th January 2018				
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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	H84Z*HC021T7					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	7.821	mg	supplier	die	Silicium carbide	409-21-2		7.405	mg	946810	1277
				supplier	metallization	Aluminium (Al)	7429-90-5		0.083	mg	10612	14
				supplier	metallization	Gold (Au)	7440-57-5		0.012	mg	1534	2
				supplier	passivation	Nickel (Ni)	7440-02-0		0.066	mg	8439	11
				supplier	metallization	Silver (Ag)	7440-22-4		0.141	mg	18028	24
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	641	1
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	511	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.012	mg	1534	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.057	mg	7288	10
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.036	mg	4603	6
Leadframe	Copper & its alloys	1866.079	mg	supplier	alloy	Copper (Cu)	7440-50-8		1862.534	mg	998100	321125
				supplier	alloy	Iron (Fe)	7439-89-6		2.799	mg	1500	483
				supplier	metallization	Nickel (Ni)	7440-02-0		0.746	mg	400	129
Die attach	Other Organic Materials	15.352	mg	supplier	soft solder	Tin (Sn)	7440-31-5		9.979	mg	650013	1721
				supplier	soft solder	Silver (Ag)	7440-22-4		3.838	mg	250000	662
				supplier	soft solder	Antimony (Sb)	7440-36-0		1.535	mg	99987	265
Bonding wire	Aluminum & its alloys	16.648	mg	supplier	wire	Aluminium (Al)	7429-90-5		16.648	mg	1000000	2870
Encapsulation	Other Organic materials	3866.094	mg	supplier	mold compound	Silica ( Fused )	60676-86-0		3576.138	mg	925000	616576
				supplier	mold compound	Flame retardant	proprietary		57.991	mg	15000	9998
				supplier	mold compound	Epoxy resin	25068-38-6		96.652	mg	25000	16664
				supplier	mold compound	Phenol resin	29690-82-2		96.652	mg	25000	16664
				supplier	mold compound	Carbon Black	1333-86-4		38.661	mg	10000	6666
Connection coating	Other inorganic materials	28.006	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		28.006	mg	1000000	4829