



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D *: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-04-28
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMS/IPD Materials Declaration Champion)
Representative Phone *	Refer to "Supplier Comment" section	Representative Email *	Refer to "Supplier Comment" section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/internet/com/support/online_tech_support.jsp		

Uncertainty Statement

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Legal Statement		
Supplier Acceptance *	true	Legal Declaration *
		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
	HSLW*Z39P12K	A	SH1A	2014-04-28
Amount	UoM	Unit type	ST ECOPACK Grade	
4430.00	mg	Each	ECOPACK® 2	

4430

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	15.75,20.15,5.15	3	Through-hole	
Comment	TO 247; MD valid for CP: STPS60SM200CW.			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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-16th December 2013				
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	HSLW*Z39P12K					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	37.076	mg	supplier	die	Silicon (Si)	7440-21-3		34.633	mg	934108	7818
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		1.437	mg	38758	324
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.032	mg	863	7
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.051	mg	1376	12
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.156	mg	4208	35
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.212	mg	5718	48
die (s)				supplier	passivation	Esterified polyamid	63428-83-1		0.225	mg	6069	51
die (s)				supplier	passivation	Tetraethylene glycol dimethacrylate	109-17-1		0.025	mg	674	6
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.017	mg	459	4
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.051	mg	1376	12
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.237	mg	6392	53
Leadframe	Copper & its alloys	2829.325	mg	supplier	alloy	Copper (Cu)	7440-50-8		2813.62	mg	994449	635129
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		1.296	mg	458	293
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		2.367	mg	837	534
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		11.968	mg	4230	2702
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.074	mg	26	17
Soft solder	Solder	17.887	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	17.082	mg	954995	3856
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.447	mg	24990	101
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.358	mg	20015	81
Bonding wire	Other inorganic materials	11.492		supplier	wire	Aluminium (Al)	7429-90-5		11.492	mg	1000000	2594
encapsulation	Other Organic Materials	1524.924	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1326.683	mg	869999	299477
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		152.493	mg	1000000	34423
encapsulation				supplier	mold compound	Phenol resin	Proprietary		38.123	mg	25000	8606
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		7.625	mg	5000	1721
connections coating	Solder	9.296	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		9.296	mg	1000000	2098