



## 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  *: Required Field

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2015-06-10
<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>	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/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
	HMDW Z52P01R	A	BO2A	2015-06-10
Amount	UoM	Unit type	ST ECOPACK Grade	
27000.00	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 o	Nickel (Ni)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
	38 - 24 - 12			
Comment	Package: ISOT4D-DBC-RA-VIS, MD valid for CP: STPS200170TV1			

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 June 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	HMDW Z52P01R					
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	107	mg	Supplier	Silicon die	Silicium (Si)	7440-21-3		103.576	mg	989718	3836
Silicon Die				Supplier	die metallization	Titanium (Ti)	7440-32-6		0.115	mg	1099	4
Silicon Die				Supplier	die metallization	Nickel (Ni)	7440-02-0		0.81	mg	7740	30
Silicon Die				Supplier	die metallization	Gold (Au)	7440-57-5		0.151	mg	1443	6
Die Attach				Supplier	die metallization	Aluminum (Al)	7429-90-5		2.348	mg	1000000	87
Lead-frame	Copper & its alloys	7917.21	mg	Supplier	alloy	Copper (Cu)	7440-50-8		7900.357	mg	997871	292606
Lead-frame				Supplier	alloy	Phosphorus (P)	12517-41-8		7.908	mg	999	293
Lead-frame				Supplier	metallization	Nickel (Ni)	7440-02-0		8.309	mg	1049	308
Lead-frame				Supplier	metallization	Phosphorus (P)	12185-10-3		0.636	mg	80	24
Soft solder	Solder	219.653	mg	R	Solder	Lead (Pb)	7439-92-1	7a-Lead in high me	205.375	mg	934997	7606
Soft solder				Supplier	Solder	Silver (Ag)	7440-22-4		3.295	mg	15001	122
Soft solder				Supplier	Solder	Tin (Sn)	7440-31-5		10.983	mg	50002	407
Insulator	Other inorganic materials	190.599	mg	Supplier	ceramic	Nickel (Ni)	7440-02-0		2.287	mg	11999	85
Insulator				Supplier	ceramic	Phosphorus (P)	12185-10-3		0.172	mg	902	6
Insulator				Supplier	ceramic	Manganese (Mn)	7439-96-5		7.433	mg	38998	275
Insulator				Supplier	ceramic	Titanium (Ti)	7440-32-6		0.781	mg	4098	29
Insulator				Supplier	ceramic	Molybdenum oxide	1313-27-5		9.53	mg	50000	353
Insulator				Supplier	ceramic	Alumina (Al2O3)	1344-28-1		170.396	mg	894003	6311
Screw	Other inorganic materials	7360	mg	Supplier	screw	Iron (Fe)	7439-89-6		7360	mg	1000000	272593
Nut	Other inorganic materials	1061.9	mg	Supplier	nut	Nickel (Ni)	7440-02-0		1061.9	mg	1000000	39330
Bonding wire	Other inorganic materials	2.447	mg	Supplier	wire	Aluminum(Al)	7429-90-5		2.447	mg	1000000	91
Connection isotop	Other inorganic materials	4599.535	mg	Supplier	connection	Copper (Cu)	7440-50-8		4598.436	mg	999761	170312
Connection isotop				Supplier	connection coating	Nickel (Ni)	7440-02-0		1.031	mg	224	38
Connection isotop				Supplier	connection coating	Phosphorus (P)	12185-10-3		0.068	mg	15	3
Encapsulation	Other inorganic materials	5434.051	mg	Supplier	Molding compound	Silica, vitreous	60676-86-0		4727.625	mg	870000	175097
Encapsulation				Supplier	Molding compound	Epoxy resin	Proprietary		543.405	mg	100000	20126
Encapsulation				Supplier	Molding compound	Phenol resin	Proprietary		135.851	mg	25000	5032
Encapsulation				Supplier	Molding compound	Carbon Black	1333-86-4		27.17	mg	5000	1006
Finishing	Other inorganic materials	107.605	mg	Supplier	connection coating	Nickel (Ni)	7440-02-0		107.605	mg	1000000	3985