



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2015-04-20
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 *	Giovanni Giacopello	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
	ESD2*Z15S02L	A	SH1A	2015-04-20
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used c	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.20,9.15,4.5	2	gull wing	
Comment	Package: D2PAK; MDF valid for STPS40M80CG-TR			

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-17th December 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	ESD2*Z15502L					
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	16.542	mg	supplier	die	Silicon (Si)	7440-21-3		16.132	mg	975215	11690
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.1	mg	6045	72
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.071	mg	4292	51
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.098	mg	5924	71
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	484	6
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.023	mg	1390	17
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.11	mg	6650	80
Leadframe	Copper & its alloys	782.722	mg	supplier	alloy	Copper (Cu)	7440-50-8		780.687	mg	997400	565715
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.36	mg	460	261
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.657	mg	839	476
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		1.012	mg	1293	733
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.006	mg	8	4
Soft solder	Solder	10.941	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	10.448	mg	954940	7571
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.274	mg	25043	199
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.219	mg	20016	159
Ribbon	Other inorganic materials	7.525	mg	supplier	ribbon	Aluminium (Al)	7429-90-5		7.525	mg	1000000	5453
encapsulation	Other Organic Materials	559.781	mg	supplier	mold compound	Silica, vitreous	60676-86-0		447.824	mg	799999	324510
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		39.184	mg	69999	28394
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		22.392	mg	40001	16226
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		33.587	mg	60000	24338
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		6.717	mg	11999	4867
encapsulation				JIG I	mold compound	Brominated Epoxy Resin	40039-93-8		8.397	mg	15001	6085
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.68	mg	3001	1217
connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804