



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 *	2015-05-29
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 Giacobello	Representative Title	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
	HWDP*Z44P12R	A	Z4XA	2015-05-29
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used c	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.54,6.10,2.29	2	gull wing	
Comment	Package: DP TO 252 DPAK; MDF valid for STPS16170CB-TR; STPS20LCD170CBTR			

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	HWDP*244P12R					
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	4.871	mg	supplier	die	Silicon (Si)	7440-21-3		4.633	mg	951139	14478
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	5954	91
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	821	13
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.007	mg	1437	22
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.021	mg	4311	66
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.021	mg	4311	66
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.028	mg	5748	88
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	411	6
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1437	22
die (s)				supplier	back side metallization	Nickel (Ni)	12185-10-3		0.032	mg	6569	100
die (s)				supplier	polymer die coating	Durimide	proprietary		0.087	mg	17861	272
Leadframe	Copper & its alloys	154.904	mg	supplier	alloy	Copper(Cu)	7440-50-8		154.625	mg	998199	483203
Leadframe				supplier	alloy	Iron(Fe)	7439-89-6		0.232	mg	1498	725
Leadframe				supplier	alloy	Phosphorus(P)	7723-14-0		0.047	mg	303	147
Die attach	solder	0.905	mg	supplier	Soft solder	Silver(Ag)	7440-22-4		0.023	mg	25414	72
Die attach				supplier	Soft solder	Lead(Pb)	7439-92-1	7a-Lead in high me	0.864	mg	954696	2700
Die attach				supplier	Soft solder	Tin(Sn)	7440-31-5		0.018	mg	19890	56
Bonding wire	Other inorganic materials	0.659	mg	supplier	bonding wire	Aluminium (Al)	7429-90-5		0.659	mg	1000000	2059
Encapsulation	Other Organic Materials	157.416	mg	supplier	mold compound	Fused Silica	60676-86-0		141.674	mg	899997	442731
Encapsulation				supplier	mold compound	Epoxy Resin	proprietary		11.02	mg	70006	34438
Encapsulation				supplier	mold compound	Phenolic resin	proprietary		3.62	mg	22996	11313
Encapsulation				supplier	mold compound	mixed siloxanes	proprietary		0.788	mg	5006	2463
Encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.314	mg	1995	981
Finishing	solder	1.245	mg	supplier	Connection coating	Tin(Sn)	7440-31-5		1.245	mg	1000000	3891