



Material Composition Declaration

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This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.

Adobe Reader version 7.0.5 is required to complete this declaration.

1752-2 1.1	IPC Web Site for Information on IPC-1752 Standard http://www.ipc.org/IPC-175x	Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Informat
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Supplier Information

Company Name * STMicroelectronics	Company Unique ID	Unique ID Authority	Response Date * 2012-09-12	Response Document ID PGO7*95561KN				
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	Duplicate Contact -> Authorized Representative				
Authorized Representative * Laurent Tosi	Title - Representative MMS Central Packaging	Phone - Representative * +33 442 685 795	Email - Representative * laurent.tosi@st.com	Supplier Comments or URL for Additional Information				
Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight *	UOM	Unit Type
		PLASTIC SMALL OUTLINE PA	2012-09-12	A	Shenzhen	80	mg	Each
Alternate Recommendation				Alternate Item Comments				

Manufacturing Process Information

Terminal Plating / Grid Array Material Nickel/Palladium/Gold (Ni/Pd/Au)	Terminal Base Alloy CU Alloy	J-STD-020 MSL Rating 1	Peak Process Body Temperature 260 C	Max Time at Peak Temperature 30 seconds	Number of Reflow Cycles 3
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Comments

Ecopack 2 compliant: means Br-Cl & Sb oxide free. DISCLAIMER: While STMicroelectronics has endeavored to provide information which is accurate and up to date, this docum

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RoHS Material Composition Declaration

Declaration Type *

Simplified

RoHS Directive 2002/95/EC **RoHS Definition:** Quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material for Cadmium

Supplier certifies that it gathered the information it provides in this form concerning RoHS restrictive substances using appropriate methods to ensure its accuracy and that 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 with European Union member state laws that implement the RoHS Directive. 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, 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, 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.

RoHS Declaration * 1 - Item(s) does not contain RoHS restricted substances per the definition above

Supplier Acceptance * Accepted

Exemptions: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.

Declaration Signature

Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.

Supplier Digital Signature

Homogeneous Material Composition Declaration for Electronic Products

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

Line Functions: +I Inserts a New Item /SubItem +M Inserts a new Material +C Inserts a new Substance Category +S Inserts a new Substance - Deletes the element line

+I	-I	Item/SubItem Name	+M	-M	Homogeneous Material	Weight	Unit of Measure	+C	-C	Level	Substance Category	+S	-S	Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM
																			-	+	
		PLASTIC SMALL O			Chip	1.187139	mg			Supplier	silicon die			Silicium (Si)	7440-21-3		1.186883	mg			14,836
										Supplier	die metallization			Aluminium(Al)	7429-90-5		0.000153	mg			1.9200
														Copper (Cu)	7440-50-8		0.000051	mg			0.6400
														Titanium (Ti)	7440-32-6		0.000051	mg			0.6400
					Lead-frame	24.98370	mg			Supplier	alloy			Copper (Cu)	7440-50-8		24.34662	mg			304,33
														Iron (Fe)	7439-89-6		0.586117	mg			7,326.5
														Zinc (Zn)	7440-66-6		0.029980	mg			374.75
														Iron Phosphide (FeP)	26508-33-8		0.020986	mg			262.33
					Lead-frame Coat	0.124344	mg			Supplier	coating			Nickel (Ni)	7440-02-0		0.113999	mg			1,425.0
														Palladium (Pd)	7440-05-3		0.007299	mg			91.238
														Gold (Au)	7440-57-5		0.003046	mg			38.080
					Die Attach	0.974030	mg			Supplier	glue or soft solder			Silver	7440-22-4		0.876627	mg			10,957
														Acrylate	na		0.058441	mg			730.52
														Methacrylate	na		0.037013	mg			462.66
														Acrylate	na		0.001948	mg			24.350
					Wires	0.062108	mg			Supplier	Bonding wire			Gold (Au)	7440-57-5		0.062108	mg			776.36
					Encapsulation	52.66694	mg			Supplier	Moulding Compound			Epoxy Resin	na		3.950021	mg			49,375
														Phenol Resin	na		2.633347	mg			32,917
														Silica, vitreous	60676-86-0		45.60957	mg			570,12
														Carbon-black	1333-86-4		0.263334	mg			3,291.7
										B	Bismuth/Bismuth Com			Bismuth	7440-69-9		0.210667	mg			2,633.3
					Finishing	0.001243	mg			Supplier	connections coating			Nickel (Ni)	7440-02-0		0.001139	mg			14.250
														Palladium (Pd)	7440-05-3		0.000072	mg			0.9123

+S	-S	Gold (Au)	7440-57-5		0.00030mg			0.3808
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