



life.augmented

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 *	2016-10-20
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 *	Floriana San Biagio	Representative Title	AMG MD 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

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.


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
	PZO7*KF33FC1	A	SH1A	2016-10-20
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	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	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85X3.9X1.52	5	gull wing	
Comment	Package: 07 SO 08 .15 JEDEC; MDF valid for KF33BD-TR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
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

QueryList :REACH-20th June 2016				
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	PZ07*KF33FC1					
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	2.969	mg	supplier	die	Silicon (Si)	7440-21-3		2.899	mg	976423	36238
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.037	mg	12462	463
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.013	mg	4379	163
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.017	mg	5726	213
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	337	13
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.002	mg	674	25
Leadframe	Copper & its alloys	37.966	mg	supplier	alloy	Copper (Cu)	7440-50-8		37.87	mg	997471	473375
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.017	mg	448	213
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.032	mg	843	400
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.044	mg	1159	550
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	26	13
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	26	13
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.001	mg	26	13
Die attach	Other Organic Materials	0.936	mg	supplier	glue	Silver (Ag)	7440-22-4		0.852	mg	910256	10650
Die attach				supplier	glue	acrylate	Proprietary		0.047	mg	50214	588
Die attach				supplier	glue	Methacrylate	Proprietary		0.037	mg	39530	463
Bonding wire	Other inorganic materials	0.034	mg	supplier	wire	Copper (Cu)	7440-50-8		0.034	mg	1000000	425
encapsulation	Other Organic Materials	38.095	mg	supplier	mold compound	Epoxy Resin	Proprietary		2.857	mg	74997	35713
encapsulation				supplier	mold compound	Phenol Resin	Proprietary		1.905	mg	50007	23813
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		32.991	mg	866019	412388
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.19	mg	4988	2375
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.152	mg	3990	1900