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Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	2020-06-10
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	**Contact Email ***	Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	**Representative Title**	MDG 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/web/en/support/support.html		

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 omprehensive 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.

Signature Not Verified

Digitally signed by MDF Champion
Date: 2020.10.06 18:18:08 +02:00

Product

Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
ST4SI2M0002TPIFW	58BH*A8MGXXY	A	9996	2020-06-10
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	60.18	mg	Each	ECOPACK® 2
.	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information

J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	
3	260	3	
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**
Not Applicable; if coating is used or other bulk termination	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	

Package Designator	Size	Nbr of instances	Shape	
QFN	5x6	8	No lead	
Comment	Package : A06D VFDFPN 8 5X6 WETTABLE FLANK DM00175359			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015

Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	**TRUE**
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE

Exemption Id.	Description

QueryList : REACH-25th June 2020

Query	Response
1 - Product(s) 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 : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**58BH*A8MGXXY**				6999999.0	999763.0
Homogeneous Material	**Material Group**	Mass	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Die or dies	M-011 Other inorganic materials	4.850	mg	supplier	die	Silicon (Si)	7440-21-3		4.652	mg	959175	77301
				supplier	metallization	Aluminium (Al)	7429-90-5		0.023	mg	4742	382
				supplier	metallization	Copper (Cu)	7440-50-8		0.079	mg	16289	1313
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	206	17
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.028	mg	5773	465
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	206	17
				supplier	Passivation	Silicon Nitride	12033-89-5		0.015	mg	3093	249
				supplier	Passivation	Silicon Oxide	7631-86-9		0.051	mg	10515	847
LEADFRAME (STW-C194 UPG)	Copper and its alloy	37.423	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		36.466	mg	974400	605777
				supplier	ALLOY	Iron (Fe)	7439-89-6		0.879	mg	23500	14609
				supplier	ALLOY	Phosporous (P)	7723-14-0		0.031	mg	800	513
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.047	mg	1300	777
LEADFRAME (STW-C194 UPG) Ni Plati	M-011 Other inorganic materials	0.695	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.678	mg	969500	11266
LEADFRAME (STW-C194 UPG) Pd Plating			mg	supplier	COATING	Palladium (Pd)	7440-05-3		0.014	mg	20600	239
LEADFRAME (STW-C194 UPG) Au Plating			mg	supplier	COATING	Gold (Au)	7440-57-5		0.003	mg	9900	114
DIE ATTACH (AMK06)	M-011 Other inorganic materials	0.010	mg	supplier	GLUE	Proprietary Acrylates	Proprietary		0.001	mg	130000	21
				supplier	GLUE	Silver (Ag)	7440-22-4		0.008	mg	800000	128
				supplier	GLUE	Proprietary Bismaleimide	Proprietary		0.000	mg	30000	5
				supplier	GLUE	Methacrylate Ester	Proprietary		0.000	mg	30000	5
				supplier	GLUE	Proprietary polymer	Proprietary		0.000	mg	10000	2
BONDING WIRE (Gold Wire)	M-011 Other inorganic materials	0.110	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.110	mg	1000000	1783
ENCAPSULATION (EME G700Y)	M-011 Other inorganic materials	16.816	mg	supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		1.950	mg	90000	32392
				supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		13.783	mg	860000	228954
				supplier	MOLDING COMPOUND	Phenolic resins	Proprietary		0.975	mg	45000	16196
				supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.108	mg	5000	1800
EXTERNAL PLATING (STW-C194 UPG)	M-011 Other inorganic materials	0.276	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.269	mg	974300	4473
				supplier	COATING	Palladium (Pd)	7440-05-3		0.006	mg	20700	95
				supplier	COATING	Gold (Au)	7440-57-5		0.001	mg	5000	23