



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 *	2020-10-16
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 *	giovanni giacopello	Representative Title	ADG 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
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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
STGW40H65DFB	TDLW*EWF6R52	A	3068	2020-10-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	4430	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		
Not Applicable	Not Applicable	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00280586	



Package Designator	Size	Nbr of instances	Shape	
SIP	15.75,20.15,5.15	3	Through hole	
Comment	TO 247			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	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 : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 3rd January 2020			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	1.38	die - leadframe	312
Lead	11.45	soft solder	2585

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	11.45	Soft solder	2585
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	11.453	Soft solder	954974

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold, Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	TDLW*EWF6R52					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	12.833	mg	supplier	die	Silicon(Si)	7440-21-3		11.704	mg	912024	2645
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.485	mg	37793	109
				supplier	metallisation	Gold(Au)	7440-57-5		0.012	mg	935	3
				supplier	metallisation	Nicke(Ni)	7440-02-0		0.139	mg	10831	31
				supplier	metallisation	Silver(Ag)	7440-22-4		0.034	mg	2649	8
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.011	mg	857	2
				supplier	metallisation	Vanadium(V)	7440-62-2		0.006	mg	468	1
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.067	mg	5221	15
				supplier	passivation	Silicon oxide	7631-86-9		0.214	mg	16676	48
Leadframe	M-004 Copper and its alloys	2709.936	mg	supplier	polymer coating	Durimide	proprietary		0.161	mg	12546	36
				supplier	alloy & coating	Copper(Cu)	7440-50-8		2705.048	mg	998196	610620
				supplier	alloy & coating	Nicke(Ni)	7440-02-0		1.242	mg	458	280
				supplier	alloy & coating	Iron(Fe)	7439-89-6		2.709	mg	1000	612
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.813	mg	300	184
Soft solder	Solder	11.993	mg	SVHC	alloy & coating	Phosphorus metal	7723-14-0		0.124	mg	46	28
				supplier	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	11.453	mg	954973	2585
				supplier	solder	Silver(Ag)	7440-22-4		0.300	mg	25015	68
Bonding wires	M-003 Aluminum and its alloys	2.894	mg	supplier	solder	Tin(Sn)	7440-31-5		0.240	mg	20012	54
				supplier	wire	Aluminium (Al)	7429-90-5		2.894	mg	1000000	653
Bonding wires 2	M-003 Aluminum and its alloys	0.130	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.129	mg	992308	29
Encapsulation	M-011 Other inorganic materials	1686.017	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	7692	0
				supplier	mold compound	Silica vitreous	60676-86-0		1173.468	mg	696000	264891
				supplier	mold compound	Quartz	14808-60-7		168.602	mg	100000	38059
				supplier	mold compound	Phenol resin	9003-35-4		101.161	mg	60000	22835
				supplier	mold compound	Epoxy resin	proprietary		219.182	mg	130000	49477
				supplier	mold compound	Carbon black	1333-86-4		8.430	mg	5000	1903
				supplier	mold compound	Polyethylene resin	9002-88-4		6.744	mg	4000	1522
				supplier	mold compound	Mercaptopropyl trimethoxysilane	4420-74-0		6.744	mg	4000	1522
supplier	mold compound	Triphenylphosphine	603-35-0		1.686	mg	1000	381				
connections coating	Solder	6.197	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.197	mg	1000000	1399