



Material declaration form

General Information			
IPC	1752	Version	2
Form type*	Distribute		
Sectionals*	Material information	Subsectionals*	A-D
	Manufacturing information		*: Required Field

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2024-10-18
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	APMS Material 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/web/en/support/support.html		

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*	Legal declaration*	Standard
true		

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	Manufacturing site	date
M2TP80M12W2-2LA	21ES*S103T92	A	3068	2024-10-18
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	13000.00	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 temperature	Number of reflow cycles		
Not Applicable	245	,		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM01038557	
Package designator	Package size	Number of instances	Shape	
ZIP-THO	44x27.4x5.4	32	Mixed	
Comment	ACEPACK DMT-32			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015		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 : ELV directive : 2000/53/EC amended 2020/363_March 2020		Response
1 - Product(s) meets EU ELV requirements without any exemptions		True
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)		False
Exemption Id.	Description	

QueryList : California Prop65 list, dated 29th December 2023			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	6.460	die - leadframe - ntc	497

QueryList : REACH-27th June 2024				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
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				True
CategoryLevel_Name	CategoryLevel_Threshold	Amount in embedded article / Homogeneous material (mg)	Application - article / Homogeneous material	ppm in article /Homogeneous material



QueryList : Responsible metals sourcing	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 :	Cobalt, Gold, Tin,

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update	Response
The Product does contain at least one of the substances listed in Chemical Control Act	False

QueryList : China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	Response
The product contains adhesives identified under GB 33372	False

Stockholm Convention Persistent Organic Pollutants	Response
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	True

QueryList : EUSR Directive	Response
Product contains hazardous materials listed in EUSR Annex II	False

PFAS/PTFE Declaration	Response
The product is containing at least one of the following PFAS substance: Polytetrafluoroethylene,Thiophenium, Triphenylsulfonium nonaflate, Trifluoroacetic anhydride	False

BPA Declaration	Response
Product does not contain Bisphenol A (Isopropylidenediphenol)	True

Montreal Protocol	Response
Product does not contain Ozone Depleting Substances based on Annex I to Annex VII of EU REGULATION (EC) No 1005/2009	True

Environmental Protection Agency:Toxic Substances Control Act (TSCA). Section 6(h)	Response
Product does not contain Phenol, isopropylated, phosphate (3:1)	True



Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	21ES'S103T92						
Homogeneous material	Material group	Mass	Unit of measure	Level	Substance category	Substance	CAS	Exempt	Mass	Unit of measure	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Dies	M-011 Other inorganic materials	52.732	mg	supplier	die	Silicon(Si)	7440-21-3		19.976	mg	378821	1539	
				California 65	die	Silicium carbide	409-21-2		29.762	mg	564401	2289	
					supplier	metallisation	Aluminium(Al)	7429-90-5		1.035	mg	19628	80
					supplier	metallisation	Copper(Cu)	7440-50-8		0.074	mg	1403	6
					supplier	metallisation	Gold(Au)	7440-57-5		0.108	mg	2048	8
					supplier	metallisation	Nickel(Ni)	7440-02-0		0.721	mg	13673	55
					supplier	metallisation	Silver(Ag)	7440-22-4		0.395	mg	7491	30
					supplier	metallisation	Titanium(Ti)	7440-32-6		0.082	mg	1555	6
					supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.087	mg	1650	7
					supplier	passivation	Silicon oxide	7631-86-9		0.303	mg	5746	23
					supplier	polymer coating	Durimide	proprietary		0.189	mg	3584	15
	Leadframe			M-004 Copper and its alloys	2534.375	mg	supplier	alloy	Copper(Cu)	7440-50-8		2525.247	mg
		supplier	alloy	Iron(Fe)			7439-89-6		2.529	mg	998	195	
		supplier	alloy	Iron phosphide			26508-33-8		0.759	mg	299	58	
		supplier	metallization	Nickel (Ni)			7440-02-0		5.723	mg	2258	440	
		supplier	metallization	Phosphorus (P)			7723-14-0		0.117	mg	46	9	
			supplier	solder			Tin(Sn)	7440-31-5		17.709	mg	955333	1362
Soft solder	Solder	18.537	mg	supplier	solder	Silver(Ag)	7440-22-4		0.643	mg	34687	49	
				supplier	solder	flux residue	proprietary		0.185	mg	9980	14	
				supplier	wire	Aluminium (Al)	7429-90-5		31.843	mg	1000000	2449	
Bonding wires	M-003 Aluminum and its alloys	31.843	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.085	mg	1000000	7	
Bonding wires 2	M-003 Aluminum and its alloys	0.085	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.085	mg	1000000	7	
Encapsulation	M-011 Other inorganic materials	7877.034	mg	supplier	mold compound	Silica(Amorphous) A	60676-86-0		5513.924	mg	700000	424148	
				supplier	mold compound	Silica(Amorphous) B	7631-86-9		787.703	mg	100000	60593	
				supplier	mold compound	Carbon Black	1333-86-4		78.770	mg	10000	6059	
				supplier	mold compound	Epoxy resin	Proprietary		708.933	mg	90000	54533	
				supplier	mold compound	Phenol resin	Proprietary		393.852	mg	50000	30296	
				supplier	mold compound	Organosilicon Compound	Proprietary		393.852	mg	50000	30296	
				supplier	solder alloy	Tin (Sn)	7440-31-5		38.293	mg	1000000	2946	
Connections coating	Solder	38.293	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		38.293	mg	1000000	2946	
Ceramic package base		2447.000	mg	supplier	ceramic	Copper	7440-50-8		1657.353	mg	677300	127489	
				supplier	connections	Ceramic_AIN	24304-00-5		789.647	mg	322700	60742	
Ntc		0.101	mg	supplier	ceramic	Manganese Oxide	1317-35-7		0.057	mg	564356	4	
				supplier	ceramic	Nickel Oxide	1313-99-1		0.015	mg	148515	1	
				supplier	ceramic	Cobalt oxide	1308-06-1		0.013	mg	128713	1	
				supplier	ceramic	Silver-glass	7440-22-4		0.008	mg	79208	1	
				supplier	metallization	Palladium	7440-05-3		0.001	mg	9901	0	
				supplier	metallization	Nickel	7440-02-0		0.001	mg	9901	0	
				supplier	metallization	Tin	7440-31-5		0.002	mg	19802	0	
				supplier	resin	Additives	Proprietary		0.004	mg	39604	0	