



Material declaration form

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

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2025-04-02
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 CHAMPION	Representative title	MDGMaterial 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

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Legal statement

Supplier acceptance*	true	Legal declaration*	Standard
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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
STM32WL31KBV6	F642*4L0XXB	A	P1C7	2025-04-02
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	75	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL rating	Classification temperature	Number of reflow cycles		
3	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	0	
Package designator	Package size	Number of instances	Shape	
QFN	5x5	32	Flat	
Comment	Package : 42 VFQFPN 5X5x1.0 32L PITCH 0.5 7376875			

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 : REACH-21st January 2025				Response
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
,	#N/A			

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	F642*4L0XXB		74.7282		600000.0	100000.0
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)
Die or dies	M-011 Other inorganic materials	5.609	mg	supplier	die	Silicon (Si)	7440-21-3		5.325	mg	949368	71258.31
				supplier	metallization	Aluminium (Al)	7429-90-5		0.014	mg	2496	187.35
				supplier	metallization	Copper (Cu)	7440-50-8		0.120	mg	21394	1605.81
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.039	mg	6953	521.88
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	178	13.36
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	178	13.36
				supplier	Passivation	Silicon Nitride	12033-89-5		0.031	mg	5527	414.85
				supplier	Passivation	Silicon Oxide	7631-86-9		0.078	mg	13906	1043.77
				Leadframe (C194)	Copper & its alloys	35.083	mg	supplier	Leadframe	Copper (Cu)	7440-50-8	
supplier	Leadframe	Iron (Fe)	7439-89-6						0.743	mg	21169.25493	9938.36
supplier	Leadframe	Zinc (Zn)	7440-66-6						0.034	mg	961.4407475	451.37
supplier	Leadframe	Phosphorus (P)	7723-14-0						0.002	mg	67.24669468	31.57
supplier	Glue or tape	Silver (Ag)	7440-22-4						0.300	mg	352447.976	4018.79
cDAF (625P8C)	Precious metals	0.852	mg	supplier	Glue or tape	Copper (Cu)	7440-50-8		0.360	mg	421943.5302	4811.21
				supplier	Glue or tape	2-Propenenitrile, polymer with 1,3-butadiene, car	68610-41-3		0.074	mg	86736.97399	989.02
				supplier	Glue or tape	Epoxy Resin	29690-82-2		0.031	mg	35868.37785	408.99
				supplier	Glue or tape	Formaldehyde, polymer with benzenamine, male	67784-74-1		0.031	mg	35868.37785	408.99
				supplier	Glue or tape	Amines, C36-alkylenedi-, polymers with 5,5'-[(1-n	1224691-99-8		0.031	mg	35868.37785	408.99
				supplier	Glue or tape	(CHLOROMETHYL)OXIRANE, 4,4'-(1-METHYL	25068-38-6		0.005	mg	5500.080039	62.71
				supplier	Glue or tape	Others	Proprietary		0.022	mg	25766.30619	293.80
				supplier	Bonding wire	Copper (Cu)	7440-50-8		0.216	mg	951663.38	2884.21
				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.009	mg	40855.49217	123.82
				supplier	Bonding wire	Gold (Au)	7440-57-5		0.002	mg	7481.127849	22.67
Encapsulation (CEL 9240ZH10W)	M-011 Other inorganic materials	32.662	mg	supplier	Molding Compound	Silica vitreous	60676-86-0		28.743	mg	880000.6628	384633.95
				supplier	Molding Compound	Biphenyl epoxy resin	85954-11-6		1.633	mg	49999.7315	21854.07
				supplier	Molding Compound	Phenolic resin	205830-20-2		1.274	mg	38999.79057	17046.17
				supplier	Molding Compound	Epoxy type resin A	Proprietary		0.653	mg	19999.8926	8741.63
				supplier	Molding Compound	Epoxy type resin B	Proprietary		0.294	mg	8999.951669	3933.73
				supplier	Molding Compound	Carbon black	1333-86-4		0.065	mg	1999.97089	874.15
External Plating (Ni/Pd/Au)	M-011 Other inorganic materials	0.295	mg	supplier	Plating	Nickel (Ni)	7440-02-0		0.271	mg	918364.4452	3630.12
				supplier	Plating	Palladium (Pd)	7440-05-3		0.021	mg	69874.67246	276.20
				supplier	Plating	Gold (Au)	7440-57-5		0.003	mg	11760.88237	46.49