



## Materials Declaration Form

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


Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>25-10-2021</b>
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Material Declaration champion</b>	<b>Representative Title</b>	<b>Material Declaration champion</b>
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**

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Legal Statement			
<b>Supplier Acceptance *</b>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
<b>Legal Statement</b>	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.		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32G491CET6	715B*479XXXZ	A	998Z	25-10-2021
	Amount	UoM	Unit type	ST ECOPACK Grade
	179.60	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used or other bulk termination : add in comments	Tin (Sn), immersion	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7x7x1.4	48	L bend	
Comment	Package : 5B LQFP 48 7x7x1.4 1 0110596			

QueryList : RoHS directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 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
5 - Product(s) is obsolete, no information is available	FALSE
6 - Product(s) is unknown, no information is available	FALSE
Exemption Id.	Description

QueryList : REACH - 19th January 2021				
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 :						Mfr Item Name	715B*479XXXZ				6000001.0	1000000.0
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)
Die_ or dies	M-011 Other inorganic materials	11.521	mg	supplier	die	Silicon (Si)	7440-21-3		11.090	mg	962590	61748
				supplier	metallization	Aluminium (Al)	7429-90-5		0.021	mg	1823	117
				supplier	metallization	Copper (Cu)	7440-50-8		0.182	mg	15797	1013
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	87	6
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.059	mg	5121	329
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	174	11
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	174	11
				supplier	Passivation	Silicon Nitride	12033-89-5		0.046	mg	3993	256
Die Attach Epoxy_3230_Henkel	M-011 Other inorganic materials	1.509	mg	Supplier	Metals	Silver	7440-22-4		0.118	mg	10242	657
				Supplier	Plastics/polymers	2,2'-(Methylenebis(phenyleneoxymethylene))	39817-09-9		1.230	mg	815000	6846
				Supplier	Organic Compounds	Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7		0.045	mg	30000	252
				Supplier	Organic Compounds	Epoxy resin	Proprietary		0.045	mg	30000	252
				Supplier	Organic Compounds	Dodecyloxirane	3234-28-4		0.045	mg	30000	252
				Supplier	Organic Compounds	Hexahydromethylphthalic anhydride	25550-51-0		0.045	mg	30000	252
				Supplier	Organic Compounds	Epoxy resin modifier	Proprietary		0.045	mg	30000	252
				Supplier	Metallic compounds	Copper oxide	1317-38-0		0.008	mg	5000	42
Mold Compound_EME-G631SHQ_Sun	M-011 Other inorganic materials	113.905	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		2.401	mg	21000	13369
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		2.401	mg	21000	13369
				Supplier	Plastics/polymers	Phenol Resin	Proprietary		6.403	mg	56000	35651
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		88.802	mg	780450	494443
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.185	mg	115320	73415
				Supplier	Non-metals	Carbon Black	1333-86-4		0.712	mg	6230	3966
Wire_AUHA3_HERAeus	Bonding Wire	0.581	mg	Supplier	Metals	Gold	7440-57-5		0.581	mg	1000000	3233
Plating anode_Pure Tin_ASAHI	M-011 Other inorganic materials	1.078	mg	Supplier	Metals	Tin	7440-31-5		1.078	mg	1000000	6004
Leadframe_C194+Ag_HDS	Copper & its alloys	51.007	mg	Supplier	Metals	Copper	7440-50-8		49.589	mg	972200	276107
				Supplier	Metals	Iron ( Fe )	7439-89-6		1.158	mg	22700	6447
				Supplier	Metals	Zinc ( Zn )	7440-66-6		0.077	mg	1500	426
				Supplier	Non-Metals	Phosphorus ( P )	7723-14-0		0.015	mg	300	85
				Supplier	Metals	Silver	7440-22-4		0.166	mg	3250	923