



# Aluminium Electrolytic Capacitor

# Material Data Sheet

Product Class:	SMD Capacitors	
Date	2011-10-11	
IMDS ID if available		
Version:	06	

Product Part (IMDS: semi component)	Material Class (IMDS: Material)	Material (Classification) VDA 231	Substance	TMPS**) [wt%]	CAS if applicable	typical mass of material [wt-%]	Traces see 1)
Active Part	Light Metals	1B	Aluminium	100	7429-90-5	20	
	Acids, Bases, Salts	6F	Gamma-butyrolactone	80	96-48-0	7,6	
			Carboxylic acid	10	-	0,95	
			Other	10	-	0,95	
	Thermoplastics	2A	Polyphenylene sulfide or Polypropylene or Polyimide	100	26125-40-6 - -	1	
Paper, Cardboard	5C	Cellulose	100	9004-34-6	3,5		
Encapsulation	Light Metals	1B	Aluminium	100	7429-90-5	28,5	
	Elastomer	2B	Butyl rubber	100	9010-85-9	18,5	
	Thermoplastics	2A	Polyethylene terephthalate	100	25038-59-9	0,5	
	Thermoplastics	2A	Polyphenylene sulfide or Polyphthalamide	100	26125-40-6 8017-16-1	12,5	
Termination	Iron and Steel	1A	Iron	100	7439-89-6	4,5	
	Heavy Metal	1C	Copper	100	7440-50-8	1	
	Heavy Metal	1C	Tin	100	7440-31-5	0,5	
<b>Sum in total:</b>						<b>100</b>	

sizes [mm]	weight range [g]	part numbers	weight range [g]	sizes [mm]	part numbers	sizes [mm]	weight range [g]	part numbers
4X5,4	0,12		0,39	6,3X7,7				B41112 B41121 B41124
4X5,8	0,13		0,52	8X6,2				B41141 B41142 B41115
5X5,4	0,18		0,81	8X10				B41123 B41125 B41143
5X5,8	0,19		1,20	10X10				B41145 B41146 B41147
6,3X5,4	0,27		1,38	10X10,5				B41161 B41162 B41163
6,3X5,8	0,285							B41164 B41165 B41190
								B41191 B41126

Not part of a Product Class

contact	Jiang Sandy	<b>Important remarks:</b> 1) The declaration limit is 0.1% as defined by IEC PAS 61906. Traces are product parts, substances etc. that are below a percentage of 0.1 % by weight, if not otherwise regulated. 2) This Material Data Sheet contains typical values of the respective products set forth herein. We expressly point out that all values and statements contained herein are based on our best present knowledge and cannot be regarded as binding statements or binding product specifications, unless otherwise explicitly agreed in writing. EPCOS AG AND ITS AFFILIATES HEREBY EXPRESSLY DISCLAIM ANY REPRESENTATION OR WARRANTY, WHETHER EXPRESS, IMPLIED OR STATUTORY, WITH REGARD TO THE STATEMENTS AND VALUES CONTAINED HEREIN, INCLUDING BUT NOT LIMITED TO ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR SUITABILITY FOR ANY PURPOSE.
Division	XM ALU	
Address	413-419 Tongji South Road, Jimei Xiamen P.R.China	
	Tel: +86 592 6102388 Ext.3220    mailto: sandy.jiang@epcos.com	
*) others: (not declarable or prohibited substances acc. GADSL)		
**) typical mass percentage of substance		

The products set forth herein are "RoHS-compatible". RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8<sup>th</sup>, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



RoHS - Exemptions for the Product Class / Product according to Annex III: (  valid  not valid )

- no exemptions;
- Exemption 6 (a): Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight;
- Exemption 6 (b): Lead as an alloying element in aluminium containing up to 0,4 % lead by weight;
- Exemption 6 (c): Copper alloy containing up to 4 % lead by weight;
- Exemption 7 (a): Lead in high melting temperature type solder (i.e. lead-based alloys containing 85 % by weight or more lead);
- Exemption 7 (c)-I: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound;
- Exemption 7 (c)-II: Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher;
- Exemption 7 (c)-III: Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC;
- Exemption 15: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages;
- Other Exemption than above .....