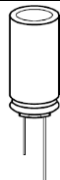


Aluminium Electrolytic Capacitor

Material Data Sheet

Product Class	Single-ended Capacitors	
Date	10/09/2019	
IMDS ID if available	-	
Version	10	

*Remark: This material datasheet is valid for the part numbers contained in the Data Book 2017. In case of special (B4****S****) or obsolete capacitors please contact our sales department.*

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	27	
	Paper, Cardboard	6D	Cellulose	100	9004-34-6	5,6	
	Acids, Bases, Salts	6F	Ethylene glycol or Gamma-butyrolactone	66 (90 if without NMP)	107-21-1 96-48-0	10,5	
	Acids, Bases, Salts	6F	NMP ***)	24	872-50-4		
	Acids, Bases, Salts	6F	Others*)	10	-		
Encapsulation	Light Metals	1B	Aluminium	99,5	7429-90-5	23,7	
	-	-	Others *)	0,5	-		
	Elastomer	2B	EPDM Rubber or Butyl Rubber	40	25038-36-2 9010-85-9	22,5	
	Inorganic, solid	4A	Kaolinite	40	1318-74-7		
	Inorganic, solid	4A	Carbon Black	10	1333-86-4		
	-	-	Others *)	10	-		
	Thermoplastics	2A	PVC or PET	90	9002-86-2 25038-59-9	5,0	
-	-	Others *)	10	-			
Termination	Iron and Steel	1A	Iron	99	7439-89-6	4	
	-	-	Others *)	1	-		
	Heavy Metals	1C12	Copper	100	7440-50-8	1,1	
	Heavy Metals	1C8	Tin	100	7440-31-5	0,6	
Sum in total:						100	

sizes D x L [mm]	weight [g]	sizes D x L [mm]	weight [g]	part numbers	part numbers
8 x 11,5	1,0	16 x 20	5,5	B41856	B41896
10 x 12,5	1,6	16 x 25	7,5	B41858	B42824
10 x 16	1,9	16 x 31,5	7,8	B41859	B42851
10 x 20	2,6	16 x 35,5	9,2	B41866	B43858
12,5 x 20	3,6	18 x 20	8,0	B41887	B43888
12,5 x 25	4,5	18 x 25	9,0	B41888	B43890
12,5 x 30	5,3	18 x 31,5	11,0	B41890	B43896
12,5 x 35	6,4	18 x 35	13,0	B41895	
12,5 x 40	7,4	18 x 40	16,0		

Not Part of a Product Class		Important remarks: 1) The declaration limit is 0.1% as defined by IEC 62474 (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
Contact	Perosa, Eduardo	
Division	CAP GTI	
Address	Bernardo Joaquim Ferreira, 624 – Gravataí, RS, Brazil	
	Tel: +55 51 3484 7000 mailto: epqm.gc@tdk-electronics.tdk.com	

*) others: (not declarable or prohibited substances acc. GADSL)

***) typical mass percentage of substance

****) Following products present NMP:

B41856A8108M	B41866C8187M	B41888C8337M
B41856A8227M	B41866C8188M	B41888C8476M
B41856A8476M	B41866C8227M	B41888C8476M 8
B41856A8476M 8	B41866C8337M	B41888C8566M
B41858C8107M	B41866C8476M	B41888E8687M
B41858C8107M 8	B41866C8477M	B41888W8108M
B41858C8128M	B41866C8477M 4	B41896C8187M
B41858C8188M	B41866C8567M	B41896C8476M 2
B41858C8227M 8	B41866C8686M	B41896C8477M
B41858C8337M 8	B41866C8687M	B41896C8477M 9
B41858C8477M	B41866D8687M	B41896C8567M
B41858C8566M	B41866E8687M	B41896C8687M
B41858C8566M 8	B41866E8687M 9	
B41858D8687M	B41888C8107M	
B41858E8477M	B41888C8127M 2	
B41858E8687M	B41888C8128M	
B41866C 687M	B41888C8158M	
B41866C8107M	B41888C8188M	
B41866C8108M	B41888C8227M	
B41866C8128M	B41888C8277M	
B41866C8157M 4	B41888C8277M 8	

based on our best present knowledge and cannot be regarded as binding statements or binding product specifications, unless otherwise explicitly agreed in writing. TDK ELECTRONICS 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.

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 8th, 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 aluminum 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