Aluminium Electrolytic Capacitor

Material Data Sheet

Product Class	**SMD Hybrid Polymer Capacitors**
Date	**10/06/2024**
IMDS ID if available	**-**
Version	**05**



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	99	7429-90-5	28	
	-	-	Others *)	1	-		
	Paper, Cardboard	6D	Cellulose	100	9004-34-6	4	
	Acids, Bases, Salts	6F	Gamma-butyrolactone or Ethylene glycol ***)	90	96-48-0 107-21-1	10,4	
	Acids, Bases, Salts	6F	Others *)	10	-		
	Composite	4D	PEDOT/PSS	90	155090-83-8	0,2	
	-	-	Others *)	10	-		
Encapsulation	Light Metals	1B	Aluminium	95	7429-90-5	22,3	
	-	-	Others *)	5	-		
	Thermoplastic	2A	Polyamide 6 or Polyurethane****)	99	25038-54-4 9009-54-5	0,4	
	-	-	Others *)	1	-		
	Elastomer	2B	Butyl rubber	31	9010-85-9	21,2	
	Inorganic, solid	4A	Carbon black	63	1333-86-4		
	-	-	Others *)	6	-		
	Thermoplastic	2A	PPA	60	127823-33-0	8,2	
	Glass	3A	Glass fiber	30	65997-17-3		
	-	-	Others *)	10	-		
	Thermoplastic	2A	PPS	98	26125-40-6	0,6	
	-	-	Others *)	2	-		
	Organic, solid	4B	Acrylic resin	84	-	0,5	
	Organic, solid	4B	Terpene phenol resin	15	39373-74-5		
	-	-	Others *)	1	-		
Termination	Light Metals	1B	Aluminium	99,9	7429-90-5	3	
	-	-	Others *)	0,1	-		
	Iron and Steel	1A	Iron	99	7439-89-6	0,9	
	-	-	Others *)	1	-		
	Heavy Metals	1C12	Copper	100	7440-50-8	0,2	
	Heavy Metals	1C8	Tin	100	7440-31-5	0,1	
					Sum in total:	100	

sizes D x L [mm]	weight [g]	part numbers	part numbers
10 x 10,2	1,4	B40900	B40930
10 x 12,5	1,6	B40910	B40940
10 x 16,5	2,1	B40920	B40950
		B40921	

Not Part of a Product Class

Contact	Pereira, Mireli	
Division	CAP GTI	
Address	Bernardo Joaquim Ferreira, 624 – Gravataí, RS, Brazil	
	Tel: +55 51 3484 7000	mailto: epqm.gc@tdk.com

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

**) typical mass percentage of substance

***) for products with 63V and 80V rated voltage

****) for 10 x 16,8 dimension

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 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.

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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 .....

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