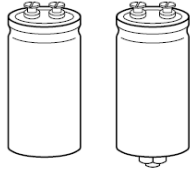


Aluminium Electrolytic Capacitor

Material Data Sheet

Product Class	Alu-X Screw terminal capacitors	
Date	2019.09.16	
IMDS ID if available		
Version	10	

Remark: This material datasheet is valid for the part numbers contained in the Data Book 2015-19. 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	33	
	Acids, Bases, Salts	6F	Ethylene glycol	80	107-21-1	19	
			Carboxylic acid	10	872-50-4-	2.3	
			Others*)	10	-	2.3	
	Thermoplastics	2A	Polypropylene	100	9003-07-0	0.2	
	Paper, Cardboard	5C	Cellulose	100	9004-34-6	13.3	
APP/APAO	2A	atactic polypropylene/Amorphous poly alpha olefin	100	9003-07-0 9010-79-1	8		
Encapsulation	Light Metals	1B	Aluminium	100	7429-90-5	12.8	
	Glass fiber	3A	Silicon dioxide	60	14808-60-7	6.3	
	Duromer	2D	Phenolic and epoxy resin	40	-		
	Elastomer	2B	EPDM rubber	41.5	25038-36-2	0.4	
	Inorganic, solid	4A	Silicon dioxide	13	7631-86-9		
	Inorganic, solid	4A	Kaolinite	28.5	1318-74-7		
	Lubricant	6B	Paraffin	10.5	8012-95-1		
	-	-	Others*)	6.5	-		
	Thermoplastics	2A	Polyvinyl chloride or Polyethylene terephthalate	90	9002-86-2 25038-59-9	1.4	
	-	-	Others*)	10	-		
Termination	Light Metals	1B	Aluminium	100	7429-90-5	1	
Sum in total:						100	

sizes [....]***	weight range [...]	size [....]***	weight range [...]	sizes [....]***	weight range [...]	part numbers ****
51.6x65	200	64.3x130	540	76.9x155	990	B43310/330
51.6x75	220	64.3x140	580	90-91x130	1150	B43320/340
51.6x96	280	64.3x155	640	90-91x144	1250	B43360/380
51.6x105	300	64.3x168.7	690	90-91x157	1400	
51.6x130	350	64.3x195	850	90-91x196	1600	
64.3x85	350	76.9x105	560	90-91x220	1900	
64.3x96	400	76.9x115	620	90-91x 236	2200	
64.3x105	430	76.9x130	770			
64.3x115	490	76.9x143	850			

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 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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*) others: (not declarable or prohibited substances acc. GADSL) **) typical mass percentage of substance ***) this Material Data Sheet is applicable for every size included in data book ****) the beginning code of part numbers		

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