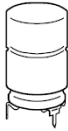


Aluminium Electrolytic Capacitor

Material Data Sheet

Product Class	Soldering Star Capacitors	
Date	10/09/2019	
IMDS ID if available	-	
Version	08	

*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	1B1	Aluminium	100	7429-90-5	35	
	Acids, Bases, Salts	6F	Ethylene glycol or Gamma-butyrolactone	65 or (90 if without NMP)	107-21-1 96-48-0	25	
	Acids, Bases, Salts	6F	1-methyl-2-pyrrolidinone (NMP) ***)	25	872-50-4		
	-	-	Others *)	10	-		
	Paper, Cardboard	5C	Cellulose	100	9004-34-6	8,7	
Encapsulation	Light Metals	1B1	Aluminium	99,5	7429-90-5	18,3	
	-	-	Others *)	0,5	-		
	Paper, Cardboard	5C	Cellulose	99,6	9004-34-6	1,1	
	-	-	Others *)	0,4	-		
	Duromer	2D	Phenolic resin	100	9003-35-4	2,0	
	Elastomer	2B	EPDM rubber	41,5	25038-36-2	1,8	
	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	PTFE	100	9002-84-0	0,1	
	Thermoplastics	2A	PET	90	25038-59-9	1,8	
	-	-	Others *)	10	-		
Termination	Iron and Steel	1A	Iron	99	7439-89-6	5,7	
	-	-	Others *)	1	-		
	Heavy Metals	1C12	Copper	100	7440-50-8	0,4	
	Heavy Metals	1C8	Tin	100	7440-31-5	0,1	
Sum in total:						100	

sizes D x L [mm]	weight [g]	sizes D x L [mm]	weight [g]	part numbers
12 x 30	5,4	18 x 30	11,8	B41789
14 x 25	6,1	18 x 35	13,2	B41790
14 x 30	7,2	18 x 39	15,4	B41791
16 x 25	7,9	21 x 30	17,1	B41792
16 x 30	9,4	21 x 35	18,3	B41793
16 x 35	10,9	21 x 39	21,0	B41796
16 x 39	12,2	21 x 49	26,0	B43793
18 x 25	9,9			

Not applicable for the following part numbers (refer to the Not RoHS material datasheet)

B41790A5588Q	B41791B7108Q	B41792B7158Q	B41793A8687Q	B41796A5158Q
B41790A8477Q	B41791B8477Q	B41792B8687Q	B41793A9107Q	B41796A5228Q
B41791A5108Q	B41792A5108Q	B41793A 107Q	B41793A9157Q	B41796A5338Q
B41791A5208Q	B41792A5158Q	B41793A 227Q	B41793A9227Q	B41796A5687Q
B41791A5337Q	B41792A5338Q	B41793A 477Q	B41793A9337Q	B41796A7108Q
B41791A5477Q	B41792A5687Q	B41793A5108Q	B41793B9157Q	B41796A7228Q
B41791A7158Q	B41792A7108Q	B41793A5477Q	B41794A5108Q	B41796A7477Q
B41791A7337Q	B41792A7228Q	B41793A7108Q	B41794A5477Q	B41796A7687Q
B41791A7477Q	B41792A7477Q	B41793A7158Q	B41794A7108Q	B41796B5338Q
B41791A7687Q	B41792A7687Q	B41793A7337Q	B41794A7158Q	B43793A1107Q
B41791A8107Q	B41792A8108Q	B41793A7477Q	B41794A7337Q	B43793A1336Q
B41791A8157Q	B41792A8227Q	B41793A7687Q	B41794A7477Q	B43793A1476Q
B41791A8227Q	B41792A8337Q	B41793A8107Q	B41794B5158Q	B43793A2226Q
B41791A8687Q	B41792A8477Q	B41793A8227Q	B41794C5158Q	B43793A2476Q
B41791B5158Q	B41792B5228Q	B41793A8337Q	B41796A5108Q	B43793A2686Q

Not Part of a Product Class	
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)	

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

***) typical mass percentage of substance

****) Following products present NMP:

B41789A8108Q 1	B41791A5158Q	B41792A8687Q
B41789A8138Q 1	B41791A7108Q	B41792B7158Q 1
B41789A8277Q 1	B41791A7687Q 1	B41793A 687Q
B41789A8337Q 1	B41791A8477Q	B41793A5158Q
B41789K8138Q 1	B41791B7108Q 1	B41793A8477Q
B41789K8597Q 1	B41791B8477Q 1	B41793A8687Q 1
B41790A8138Q 1	B41792A5228Q	B41793B7108Q 1
B41790A8258Q	B41792A5338Q 1	
B41790A8258Q 1	B41792A5687Q 1	
B41790A8307Q 1	B41792A7158Q	

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