**MKP Film Capacitor**

**Material Data Sheet**

<table>
<thead>
<tr>
<th>Product Class</th>
<th>MKP Motor run round B32330x / B32332x</th>
</tr>
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<tr>
<td>Date</td>
<td>18/11/2019</td>
</tr>
<tr>
<td>IMDS ID</td>
<td>NA</td>
</tr>
<tr>
<td>Version</td>
<td>5.02.1a (03/2019)</td>
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</tbody>
</table>

### Product Part

#### Active Part

- **Thermoplastic 2A**
  - PP
  - CAS: 9003-07-0
- **Light Metal 1B**
  - AL
  - CAS: 7429-90-5
- **Heavy Metal 1C**
  - Zn
  - CAS: 7440-66-6

#### Encapsulation

- **Light Metal 2B**
  - Al
  - CAS: 7429-90-5
  - Typical mass of material: 14.9 %
- **Thermoplastic 2A**
  - Polyamide 6
  - CAS: 25038-54-4
  - Typical mass of material: 12.6 %
- **Flame Retardant 5A**
  - Fiber glass
  - CAS: 1309-64-4
  - Typical mass of material: 25 %
- **Inorganic solid 4A**
  - Bismaleimide flame retardants
  - CAS: 9203
  - Typical mass of material: Not available
- **Elastomer 2C**
  - Silicone
  - CAS: 68085-18-1
  - Typical mass of material: 0.6 %
- **Duromer 2D**
  - Polyurethane
  - CAS: 7631-86-9
  - Typical mass of material: 23.2 %

### Termination

- **Iron & Steel 1A**
  - Fe
  - CAS: 7439-89-6
  - Typical mass of material: 94 %
- **Heavy Metal 1C**
  - Cu
  - CAS: 7440-50-8
  - Typical mass of material: 2 %
- **Heavy Metal 1C**
  - Sn
  - CAS: 7440-31-5
  - Typical mass of material: 1.2 %
- **Heavy Metal 1C**
  - Cu
  - CAS: 7440-50-8
  - Typical mass of material: 0.7 %

### Mounting Part

- **Iron & Steel 1A**
  - Fe
  - CAS: 7439-89-6
  - Typical mass of material: 92 %
- **Heavy Metal 1C**
  - Zn
  - CAS: 7440-66-6
  - Typical mass of material: 0.7 %

**Sum in total:** 100%

<table>
<thead>
<tr>
<th>Size [dxh]</th>
<th>Weight range [g]</th>
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<tbody>
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</table>

**Not part of a Product Class**

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**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.

**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:

☑ no exemptions;
☐ Exemption 6 (a): Lead as an alloying element in steel for machining purposes and in galvanised 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 (b): 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): Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher;
☐ Exemption 7 (d): 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 ..............................................................