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RoHS – Frequently Asked Questions

All herein contained statements only refer to electronic components manufactured b

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1. Are components subject to the RoHS regulation?

The law applies to:

1. Large household appliances
2. Small household appliances
3. IT and telecommunications equipment
4. Consumer equipment
5. Lighting equipment
6. Electrical and electronic tools (with the exception of large-scale stationary indust
7. Toys, leisure and sports equipment
10. Automatic dispensers

Thus, the directive 2002/95/EU does not apply directly to passive components, how offers products that are made for use in equipment mentioned in the directive.

2. Which EPCOS components have lead-free (RoHS compatible) terminations?

Please see RoHS and Lead-free Information for EPCOS Products.

3. When will EPCOS offer lead-free (RoHS compatible) components?

The conversion to lead-free components started in 2001. Newly developed products lead-free terminations (see RoHS and Lead-free Information for EPCOS Products).

4. Are RoHS compatible, approved samples available?

Samples are available (see RoHS and Lead-free Information for EPCOS Products.)

5. Does EPCOS mark RoHS compatible components specially?

There is no mark on the product itself; one can distinguish the products via date code identify our shipments on the delivery documents and the Barcode Product Label (E text "RoHS compatible" if the product is RoHS compatible.

6. Does EPCOS change the ordering codes in the course of the transition to RoHS compatibility?

No, generally not.

7. Which of the RoHS compatible components can still contain lead?

Ceramic Components.

8. Do the electric specifications of RoHS compatible components change?

No, they do not.

9. For which of the components can the ban of lead not be applied?

All of the components can be converted to having lead-free terminations.

10. Of which material do the terminations consist?

The lead-free terminations generally consist of Sn100 (pure tin) with a diffusion prevention nickel.

11. Do RoHS compatible components require higher soldering temperatures?

A process-related temperature adjustment of lead-containing processes could be possible. Lead-free processes generally require a new temperature profile due to the soldering materials.

12. Are there differences in processing tin/lead- and lead-free soldering alloys?

Due to the higher melting temperature of lead-free soldering material, the soldering profile has to be adjusted accordingly. You may find information on that subject e.g. in the IEC Standard 58.

13. Do you have technical reports on the subject „Lead-free soldering“?

 [For further information](#)

14. For which EPCOS components is the maximum soldering temperature below 260°C? What is the maximum temperature for these components?

Please see RoHS and Lead-free Information for EPCOS Products.

15. Are there EPCOS components that still contain mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenylether (PBDE)?

The elements mercury, cadmium and its combinations, as well as hexavalent chromium, are not contained in traces below the threshold defined by law. PBB as well as PBDE, in particular octa- and pentabrominated diphenylethers, have been eliminated from production since 2001.

16. Are there limitations regarding shelf-life of products?

As of today we are not aware of any differences regarding shelf life or solderability termination) between lead-free and lead-containing terminations. Generally shelf life depends on the store conditions and environmental influences (temperature, humidity).

17. Who is the contact person for RoHS and current European legislation regarding related environmental protection?

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