

DRAFT

Guidance document

Directive 2002/96/EC on Waste Electrical and Electronic Equipment Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment

Maximum Concentration values (RoHS)

For the purposes of Article 5(1)(a): a maximum concentration value of 0.1% by weight in homogeneous materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and of 0.01% weight in homogeneous materials for cadmium shall be tolerated.

Homogeneous material means a material that can not be mechanically disjointed into different materials.

Definitions:

The term "homogeneous" is understood as "of uniform composition throughout". Examples of "homogeneous materials" are individual types of: plastics, ceramics, glass, metals, alloys, paper, board, resins, coatings.

The term "mechanically disjointed" means that the materials can be, in principle, separated by mechanical actions such as for example: unscrewing, cutting, crushing, grinding and abrasive processes.

Examples:

- A plastic cover is a "homogeneous material" if it consists of one type of plastic that is not coated with or has attached to it or inside it any other kinds of materials. In this case the limit values of the directive would apply to the plastic.
- An electric cable that consists of metal wires surrounded by non-metallic insulation materials is an example of a "non homogeneous material" because the different materials could be separated by mechanical processes. In this case the limit values of the directive would apply to each of the separated materials individually.
- A semi-conductor package contains many homogeneous materials which include; plastic moulding material, tin-electroplating coatings on the lead frame, the lead frame alloy and gold-bonding wires.

Disclaimer

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