

Heavy Metal Free Cables



Applications: The Madison family of Heavy Metal free cables provides highly efficient interconnect solutions for both today's and tomorrow's systems while complying with the current worldwide environmental demands. These cables are manufactured to the most stringent requirements and are compliant to UL and CSA safety certifications as well as any applicable ANSI standards.

The Heavy Metal free family of cables utilizes proprietary compounds for both primary and jacket insulations and can be manufactured in flexible and standard versions. As with all Madison cables, multi-conductor and multi-pair configurations are fully color coded for ease of termination.

To better facilitate routing and the installation process, this family of products is produced using the most flexible PVC and Plenum compounds available.

Heavy Metal Free Cables

Madison's Heavy Metal free cables meet the most stringent interconnect requirements while complying with current worldwide environmental demands.

Features & Benefits

- Complies with all current worldwide environmental demands (ELV, RoHS, WEEE, Proposition 65, China RoHS, etc.)
- Available in both Plenum and Non-Plenum designs
- High flex compounds available for ease of routing and installation
- Available in multi-conductor, multi-pair, coax, parallel pair, planar, and single-conductor designs
- All components identified for ease of Termination
- Formulated as close as possible to lead-stabilized cables with minimal changes in gloss, hardness, etc.
- All applicable UL and CSA Safety Certifications are available
- Lead, Cadmium, Mercury, Hexavalent, PBB, PDBE and Chromium free



Madison's Heavy Metal free cables are compliant to the following Regulations and Directives

ELV (End of Life Vehicles) Directive 200/EC/53

ELV is a European directive with the goal of increasing the recycling content of automotive vehicles. This directive took effect on July 1, 2003 and bans or limits the use of lead, mercury, cadmium, and hexavalent chromium. This directive may include PVC as a limited substance in the future. The initial directive included some exceptions for components such as batteries, coatings, solder, and lighting fixtures. These exceptions are scheduled to expire between 2005 and 2008. Some European Union member countries are considering criminal penalties for companies that do not comply to the ELV directive.

WEEE (Waste Electrical and Electronic Equipment) and RoHS (Restriction of the Use of Hazardous Substances)

WEEE and **RoHS** are both European Union Environmental Directives that take effect in July 2006 and include all member nations of the EU. The major objectives of these directives is to prevent or reduce waste from electrical and electronic equipment, to promote re-use, recovery, and recycling of equipment, to minimize the environmental risk of recycling, treatment, and disposal of electronic equipment, and to phase out some of the current hazardous substances included in the equipment. The substances that are listed to be phased out are lead, mercury, cadmium, hexavalent chromium, and polybrominated flame retardants (polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE). Under these directives, lead used in solders for servers, storage array systems, and networking equipment is exempted until 2010. **Proposition 65 (State of California Safe Drinking Water and Toxic Enforcement Act of 1986)**

Administration on the Control of Pollution Caused by Electronic Information Product (China RoHS)

China RoHS directive took effect in March 2007. While there is commonality between the RoHS requirements in the EU and those in China, there are also significant differences. The one key similarity is the list of substances being targeted. The targeted substances are the same as EU RoHS. China RoHS is to be implemented in phases, with the first phase imposing only marking and disclosure requirements. The second phase deals with the list of products that will be covered by the regulation. The "Catalogue" will define which products are restricted, the timeline of the restriction and the substances to be restricted. The catalogue is expected to be released in late 2007 or early 2008. China RoHS covers many product classes that are not covered under the EU RoHS directive. Products such as semiconductor and other large scale manufacturing equipment, medical production, automotive, electronics, production materials and consumables and components materials are covered under China RoHS.

Proposition 65, instituted by the State of California, is intended to prevent the contamination of drinking water and to inform residents of the hazards of being exposed to certain chemicals and substances. Under this directive the Governor of California is required to publish a list of chemicals and substances known to the state to cause cancer, birth defects, and reproductive harm. The list of chemicals includes cadmium, carbon black extracts, vinyl chloride, hexavalent chromium, lead and lead compounds, and antimony trioxide. Products having a lead content of 300 ppm must be labeled that there is a possibility they could be a hazard. Most of the cables that Madison makes are exempt from Proposition 65 because consumers will not be exposed to our products. Initial exempted cables are as follows:

- printer cables
- power control & instrumentation cables
- power tool cords
- riser/plenum cables
- telephone switching cables
- signal cable
- telecom data cables
- speaker wire
- thermostat cable

There currently are several other states considering directives similar to Proposition 65. Legislation is being proposed in New York, New Jersey, Michigan, and Massachusetts.

Note: All information regarding the various directives is current as of October 18, 2007

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