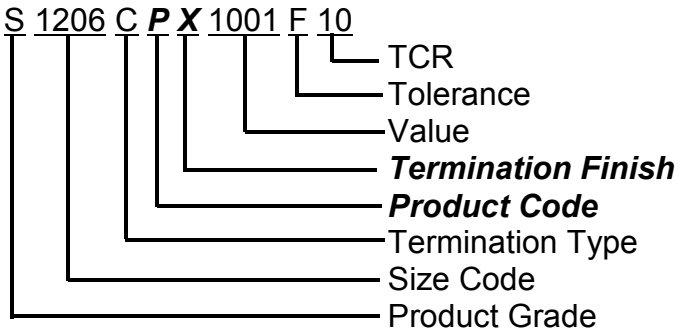
State of the Art, Inc.
2470 FOX HILL ROAD, STATE COLLEGE, PA 16803-1797
PHONE 814-355-8004 FAX 814-355-2714 www.resistor.com

# Restriction on Hazardous Substances (RoHS)
# Thick Film Product Compliance

*The European Unionís RoHS legislation[1] prohibits the sale of products that contain lead[2], mercury, cadmium, chromium(VI), polybrominated biphenyls, and polybrominated diphenylethers, unless an end use exemption is granted.*

State of the Art, Inc. (SOTA) thick film resistors may contain lead or cadmium, and therefore not be RoHS compliant. Compliance is determined by the product and termination codes identified in the table below.




- ❑ Product Codes ***B*** and ***R*** (high power resistors) are <u>not</u> RoHS compliant because they contain cadmium.
- ❑ Termination Finishes ***X*** , ***N***, and ***K*** are 60/40 tin lead solderable finishes that are <u>not</u> RoHS compliant.
- ❑ Termination Finishes ***Z*** (gold over nickel), ***Y*** (silver over nickel), ***V*** (SAC 305 solder dipped), and ***M*** (gold/tin solder bump) are solderable & RoHS compliant.
- ❑ Termination Finishes ***C***, ***P***, and ***G*** are epoxy or wire bondable and are RoHS compliant.

*<u>Future Termination Finishes</u>:*

*As a high reliability resistor manufacturer, SOTA will not provide pure tin terminations due to the potential of tin whisker and tin dendrite formation. SOTA recommends the use of 60/40 tin lead solder for all mission critical high reliability applications. Any new termination finish developed by SOTA will be assigned a new termination finish code.*

---

*[1] Directive 2002/95/EC of the European Parliament and the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.*

*[2] Lead in the glass of electronic components is exempted from the requirements of Article 4(1) by application 5 in the annex to RoHS. SOTA thick film resistors have lead in the glass.*

March 7, 2006