

Acanthite - Ag₂S

Hardness = 2 - 2 1/2. Cleavage: Indistinct. Soft and sectile. Avoid steel tools and other harsh mechanical cleaning methods. Soluble in HNO₃. Slowly to rapidly attacked by acids, except for cold, concentrated citric acid. Photosensitive; darkens on exposure to light, forming a sooty coating, removable with brief sonication (with detergent in bath).

Argentite is stable only above 177°C, so specimens labeled as such are actually acanthite.

References

Mindat: <https://www.mindat.org/min-10.html>

Handbook of Mineralogy: <https://www.handbookofmineralogy.org/pdfs/acanthite.pdf>

Hardinger, S. (2025) Mineral Specimen Cleaning and Development for the Amateur, 339 p.

Sinkankas, J. (1972) Gemstone & Mineral Data Book, 346 p. Winchester Press, New York.