

Cookeite - $\text{LiAl}_4(\text{Si}_3\text{Al})\text{O}_{10}(\text{OH})_8$

Hardness = 2.5 - 3.5. Cleavage: Perfect. Remove with NH_4HF_2 /hot alkali/textile gun protocol as many associated pegmatite minerals (quartz, beryl, tourmaline, etc.) tolerate this treatment. Tolerates Iron OUT/EDTA. Tolerates oxalic acid but requires prolonged soak in clean water afterwards to minimize yellow stains upon drying. Attacked by H_2SO_4 , especially quickly when the acid is warm and concentrated.

References

Mindat: <https://www.mindat.org/min-1121.html>

Handbook of Mineralogy: <https://www.handbookofmineralogy.org/pdfs/cookeite.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.