Tourmaline group - NaFe²⁺3Al₆(Si₆O₁₈)(BO₃)₃(OH)₃(OH)

Hardness: 7. Cleavage: Poor/indistinct. Broad chemical resistance, especially to acids. Tolerates any dithionite recipe as well as hot oxalic acid. Stable to hot alkali (including Neodisher LM3) with or without added TKPP. Stable to NH₄HF₂ but numerous associated species may be attacked to some extent.

A large group of related minerals consisting of ~ 50 species expected to have similar physical and chemical properties. Data given here is for schorl.

Varieties/related species (treat same as tourmaline): Dravite, elbaite, fluor-buergerite, foitite, rubellite, schorl, verdelite, uvite

References

Mindat: https://www.mindat.org/min-4003.html

Handbook of Mineralogy: https://www.handbookofmineralogy.org/pdfs/schorl.pdf

Betts, J. (2025) Mineral cleaning for amateurs.

www.johnbetts-fineminerals.com/jhbnyc/articles/minclean.htm

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

Rohner, T. (2000) Properly clean minerals online cleaning book.

www.strahlen.org/stepbystep/mineralien-reinigung2.pdf. In German.

Sinkankas, J. (1970) Prospecting for Gemstones and Minerals, 397 p. Van Nostrand Reinhold Company, New York.

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