

## **Biotite - $\text{K}(\text{Mg};\text{Fe}^{2+})_3(\text{Al};\text{Fe}^{3+})\text{Si}_3\text{O}_{10}(\text{OH};\text{F})_2$**

Hardness = 2.5 - 3. Cleavage: Perfect. Soft; easily foliated. Decomposed by  $\text{H}_2\text{SO}_4$  with bleaching and residue of porous silica. Dissolves slowly in concentrated HCl. Some sources advise to avoid prolong immersion in fluids as this will cause exfoliation, however the effect is slow to nonexistent when the books are tight.

### References

Mindat: <https://www.mindat.org/min-677.html>

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