Grossular - Ca₃Al₂(SiO₄)₃

Hardness: 6.5 - 7. Cleavage: None observed. Inert to HCl used to remove enclosing calcite, but some samples maybe intergrown with calcite and thus disintegrate under this treatment. Prolonged exposure of some associated skarn minerals may cause delustering. Tolerates Oron OUT/EDTA. Stable to hot oxalic acid at 6 grams per liter but may be attacked at higher concentration. Stable to NH₄HF₂.

Varieties/related species (treat same as grossular): Heesonite, plazolite, tsavorite

References

Mindat: https://www.mindat.org/min-1755.html

Handbook of Mineralogy: http://www.handbookofmineralogy.org/pdfs/grossular.pdf

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.