

Mineral Identification Chart for Mineral Properties Lab

Mineral Name	Luster	Diaphaneity	Estimated Density	Hardness	Cleavage	Color	Other
amphibole	nonmetallic	opaque-translucent	average	scratches glass (6-5.5)	2 @~60°/120°	black	cleavage @ 60/120°
azurite	nonmetallic	opaque	average	scratched by nail (3.5-4)		blue	often with malachite
barite	nonmetallic, vitreous	translucent	heavy	scratched by nail (3-3.5)	2	creamy white, colorless	curved cleavage pl.
biotite	nonmetallic	translucent	average	scratched by nail (3-2.5)	1	black/very dark green	very thin sheets (mica)
calcite	nonmetallic	translucent	average	scratched by nail (3)	3 (rhomb)	varied	fizzes in HCl
chlorite	nonmetallic	translucent	average	scratched by penny (2-2.5)	1	green	very thin sheets (mica)
feldspar (orthoclase)	nonmetallic, vitreous	translucent	average	scratches glass (6)	2	gen. pink-white	common
feldspar (plagioclase)	nonmetallic, vitreous	translucent	average	scratches glass (6)	2	gen. white-dark gray	common, fine striations
fluorite	nonmetallic	translucent-transparent	average	scratched by nail (4)	4 directions	varied	may fluoresce
galena	metallic	opaque	heavy	scratched by penny (2.5)	3 (cube)	gray	feels heavy
garnet (almandine)	nonmetallic	translucent	heavy	scratches glass (7)	no cleavage	red/red-brown	12-sided crystals
garnet (grossular)	nonmetallic	translucent	heavy	scratches glass (7)	no cleavage	green	12-sided crystals
graphite	metallic, earthy	opaque	light-av	scratched by fingernail (1-2)	1	pencil-lead gray	colors fingers gray
gypsum	earthy or silky	translucent-transparent	light	scratched by fingernail (2)	1 good	white to colorless	softer than fingernail
halite	nonmetallic	translucent-transparent	light	scratched by penny (2.5)	3 (cube)	colorless, white	salty taste
hematite	metallic to earthy	opaque	heavy	scratches glass (6.5-5.5)		metallic gray, rust red	rusty streak
kaolinite	earthy	opaque	light	scratched by fingernail (2-1)		white	chalky
malachite	nonmetallic	opaque-translucent	average	scratched by nail (3.5-4)		green	often with azurite
muscovite	nonmetallic	translucent-transparent	average	scratched by penny (2.5-2)	1 direction	colorless, silvery	very thin sheets (mica)
olivine	nonmetallic	translucent-transparent	average	scratches glass (6.5-7)	no cleavage	gen. green	typ. small grains
pyrite	metallic	opaque	heavy	scratches glass (6.5-6)	no cleavage	brassy	fool's gold
pyroxene	nonmetallic, vitreous	translucent-transparent	average	scratches glass (5-6)	2 @~90°	gen. green-black	dark, 90° cleavage
quartz	nonmetallic, vitreous	translucent-transparent	average	scratches glass (7)	no cleavage	varied	very common
sphalerite	resinous to metallic	translucent	heavy	scratched by nail (4-3.5)	6 directions	varied	smells like sulfur