

Tourmaline

Mineral Reference Profile • Silicates

Chemical / compositional reference

complex borosilicate

Mohs hardness

7–7.5

Physical properties

Extremely diverse; properties reflect polymerization of silica tetrahedra, elemental substitutions and crystal structure.

Geological occurrence

Granitic pegmatites and metamorphic rocks worldwide; gem material is important in Brazil and Africa.

Economic, technological and cultural relevance

Construction, ceramics, glass, refractories, abrasives, gemstones, lithium resources, insulation and countless technological applications.

Museum learning value

In the museum context, Tourmaline is used to connect observation with mineral identification, geological formation, material science, responsible resource use and the relationship between natural resources and society. Specimen-specific analytical data should always be read from the verified museum catalogue or laboratory record.