

Agate

Mineral Reference Profile • Gemstone Varieties

Chemical / compositional reference

SiO₂■

Mohs hardness

6.5–7

Physical properties

Evaluated by color, transparency, luster, refractive behavior, inclusions, hardness, durability and cut potential.

Geological occurrence

Gem-quality material forms only where geological conditions produce sufficient crystal size, clarity, color and durability.

Economic, technological and cultural relevance

Jewelry, lapidary arts, cultural heritage, museum collections, scientific education and responsible gem trade.

Museum learning value

In the museum context, Agate 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.