



Minerals

Chromite

$\text{Fe}^{+2}\text{Cr}_2\text{O}_4$ (Spinel Group)

Crystallography:

Isometric; $4/m\bar{3}2/m$. Habit octahedral but crystals small and rare; most often granular to compact; massive.

Physical Properties:

Cleavage: None. Fracture uneven; brittle.

Hardness: 5.5.

Specific Gravity: 4.6.

Luster: Metallic to submetallic; often pitchy.

Color: Iron-black to brownish-black; sub-translucent.

Streak: Dark-brown.

Composition/Features:

An oxide mineral of the Spinel Group containing iron and chromium and possessing the structure of a normal spinel. Commonly distinguished by a submetallic luster and a green borax bead diagnostic of chromium.

Occurrence/Use:

A common constituent of peridotites and other ultrabasic rocks. Large chromite ore deposits are thought to have been derived by magmatic differentiation. The only ore of chromium, a major constituent in stainless steel. Chromium is also widely used in plating metals, in dyes, and as a refractory material.