Minerals

Forsterite

$Mg_2 Si O_4$ (Olivine Group)

Crystallography:

Orthorhombic; *2/m2/m2/m*. Rarely in small equidimensional or tabular crystals; usually in granular masses and as rounded grains.

Physical Properties:

Cleavage: {101} indistinct. Fracture conchoidal.
Hardness: 6.5.
Specific Gravity: 3.2.
Luster: Vitreous.
Color: Usually olive-green, pale yellow-green, or white. Transparent to translucent.
Streak: White.

Composition/Features:

Magnesium end-member of olivine solid solution series. The more common olivines are richer in Mg than in Fe (fayalite). Infusible. Distinguished from fayalite by more common olive-green color, lower specific gravity, and higher melting point. Slowly soluble in hot HCl.

Occurrence/Use:

A common rock-forming mineral found in basic to ultrabasic igneous rocks. The rock *dunite* is composed almost entirely of forsterite (olivine). Used in the manufacture of refractory bricks.