Rocks

Diabase

Type:

Igneous; intrusive.

Texture/Appearance:

Often porphyritic; characterized by an ophitic groundmass where intersecting plagioclase laths are partially or completely enclosed by pyroxene. Massive with pyroxene and chlorite.

Color:

Dark, greenish to black; brown on weathered surfaces.

Mineralogy/Chemistry:

Mafic; composed chiefly of calcic plagioclase(30-70%) and pyroxene (25-65%). May contain olivine hornblende, magnetite, ilmenite, pyrrhotite, and chalcopyrite as accessory minerals. Similar in chemistry to basalt/gabbro.

Occurrence/Use:

Found as dikes and sills, often in association with flood basalts as a feeder dike. Massive diabase forms the lower, slower cooling parts of particularly thick basaltic flows. Also called dolerite or trap rock. Worldwide distribution, with classic exposures along the Palisades Sill of New York/New Jersey Triassic basin. Used extensively as an aggregate material.