

METAMORPHIC ROCKS

Metamorphic rocks may be formed by one or more natural processes. Most often they are re-crystallized in their solid state by the forces of immense pressure and heat, and may also be influenced by the introduction of chemically active solutions. Igneous, sedimentary, and pre-existing metamorphic rocks may all be metamorphosed to become new rocks. The change may be partial and some of the original characteristics retained, or it may be so complete that new minerals are formed and the crystal matrix is transformed.

FOLIATED ROCKS

1. GNEISS may be formed from granites or sedimentary rocks and typically shows layering of mica, quartz and feldspar.
2. GRAPHITE SCHIST is composed of the mineral graphite and displays a layered texture.
3. MICA SCHIST is composed of small layered flakes of muscovite or biotite.
4. CHLORITE SCHIST is composed of medium-grained layers of chlorite and mica.
5. GARNET SCHIST is composed primarily of small flakes of mica with larger crystals of garnet.
6. SLATE is metamorphosed shale. It has an extremely fine texture and splits cleanly along its horizontal planes.
7. AMPHIBOLITE consists of amphiboles and plagioclase feldspar. It may also show foliation.
8. TALC SCHIST is composed of layered mineral talc and mica.
9. PHYLLITE is a layered intermediate rock with grain size between that of slate & schist.

NON-FOLIATED ROCKS

10. QUARTZITE is metamorphosed sandstone, which is partially re-crystallized.
11. QUARTZITE often is colored by other minerals like hematite, resulting in its red color.
12. MARBLE is re-crystallized limestone (calcium carbonate) and typically is white in color.
13. MARBLE may contain other minerals which can color the rock green, pink, gray, & black.
14. HORNFELS is a fine-grained, contact-metamorphosed, non-schistose rock.
15. ANTHRACITE is a metamorphosed coal.