

# Limestone



Limestone is a sedimentary rock mainly made up of calcium carbonate,  $\text{CaCO}_3$ . It was formed at the bottom of a sea about 300 million years ago. Limestone has many uses in industry and as a building stone.

When limestone is heated in a kiln, the calcium carbonate breaks down into calcium oxide and carbon dioxide. This type of reaction is called thermal decomposition. The process is called calcining. Once burnt limestone turns into calcium oxide which is known as quicklime.

Quicklime reacts with water to produce calcium hydroxide, which is also called slaked lime. Slaked lime is used to reduce the acidity of soil, which helps increase its fertility. It also has many uses as a building material. Slaked lime gradually reabsorbs carbon dioxide from the air and turns back into calcium carbonate.

