

What is Concrete Made Of?

Concrete's durability has made it the most widely used building material on the planet. Although most of today's concrete mixes use Portland cement and can include some manmade products, concrete was first used by the Romans over 1000 years ago.

Ingredients:

Cement – Cement is a dry powder that forms a paste when mixed with water.

Water – Water is needed to hydrate the cement, rock, and for workability.

Aggregates – Sand and Stone. The most common types of concrete stone are gravel and limestone.

Non-chemical admixes – fly ash, silica fume, slag (summer only).

Chemical admixes – Chemical additives that are used to increase or decrease set time as well as increase strength.

These ingredients mixed together to form concrete, or ready-mix. Each ingredient has a purpose and using different amounts creates different mixes for specific types of projects. A good mix design will result in a mix that is easy to place, resists material segregation, and flows easily. Concrete should have a uniform appearance when done drying as well as meet strength requirement.

