

CEMENT VS. CONCRETE: KEY DIFFERENCES

Cement and concrete are terms that are often used interchangeably, but they refer to very different materials with distinct purposes in construction.

What Is Cement?

Cement is a fine, powdery substance made primarily from limestone and clay. It is an ingredient, not a finished product. When mixed with water, cement forms a paste that binds with sand, gravel, or other aggregates to create a solid mass. The most common type is Portland cement, widely used for its strength and versatility.

What Is Concrete?

Concrete is a building material made by mixing cement with water, sand, gravel, or crushed stone. The cement acts as the binder, but concrete gets its strength and durability from the aggregate materials (sand and gravel). Once mixed and cured, concrete becomes a rock-like, very strong structure used for sidewalks, buildings, bridges, and much more.

Main Differences

- Cement is an ingredient; concrete is the final product.
- Cement alone is not strong; concrete's strength comes from the combination of cement, water, and aggregates.
- Uses: Cement is used in mortar and grout, while concrete is used for structural applications like foundations, walls, slabs, and pavement.

In summary, cement is the “glue” that holds concrete together, but concrete is the durable material used in construction projects. Remember: All concrete contains cement, but not all cement is concrete.

