

WHY CONCRETE IS AN ENVIRONMENTALLY FRIENDLY BUILDING MATERIAL

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Concrete is a pivotal material for the construction industry. Crews around the world have used concrete for centuries as it is an affordable mixture suitable for buildings, landscapes, structures and more. Concrete takes on different forms through placement and drying, but one notion is certain — concrete is an environmentally friendly resource for sustainable home construction. This concept becomes easier to grasp when looking at concrete mixtures at all stages of the building process.

What Is Concrete?

Concrete is a construction material consisting of water, aggregates (rock, sand or gravel) and a cement paste. The mixture usually arrives to work sites as a fine powder and gets combined with water for various applications.

In its simplest form, concrete is a “green” material deriving from rock and raw materials found naturally on earth. Powders are biodegradable, and construction companies can recycle fresh concrete not yet cured. Concrete is sustainable, resourceful and provides long-term results when applied correctly.

Is Concrete Sustainable?

Concrete remains sustainable as long as industries monitor how much they are using. Businesses that only generate what is needed to match demand will create little waste throughout the concrete production process. Construction companies can recycle almost 100% of concrete they have not yet used, and no packaging is required in the delivery of contents.

Concrete uses one of the most abundant minerals on earth — limestone for molding structures and surfaces. Concrete manufacturers can create powders for this material out of byproducts of power plants and steel mills. The following ingredients act as substitutes for concrete mixtures, and each is a waste product of industrial facilities:

- Fly ash
- Slag cement
- Silica fume

Concrete Durability and Thermal Mass

Construction products need to last for years at a time to be sustainable. While wood rots, grows mold and burns easily, concrete can double the lifespan of competing materials. Concrete buildings and structures stand strong against intense weather, flooding and other disasters that create complications for property owners.

Structures built using concrete experience thermal benefits for keeping heat and cool air inside when you need it the most. This ultimately reduces the effects of emissions coming from HVAC equipment.

Is Concrete Environmentally Friendly?

Concrete is environmentally friendly, especially when used as a surface for driveways, sidewalks, parking lots and other flatwork applications. Concrete is porous and allows water to pass through it. The material's absorbent qualities are ideal for controlling runoff and stormwater buildup across entire communities.

Concrete surfaces assist with flash flooding as they direct water away from soil, crops, water sources and more. Construction companies can use concrete to guide water to drainage and sewage systems for filtering.

Demolition and Concrete Recycling

Not all buildings are designed to stand forever. Fortunately, demolition crews can reuse concrete that was once a part of a structural foundation. As long as the concrete is free of waste, you can use industrial crushing equipment to break up building materials for reuse.

Machinery separates particles from demolition projects, and old concrete can get recycled as an additive for new mixtures. Old concrete is perfect for the following projects:

- Paving (walkways, driveways and outdoor surfaces)
- Asphalt creation
- Aggregate for new concrete
- Landscaping rock
- And more