



15,000,000 trees could be saved each year, if homeowners selected concrete patios over wood decks.

# The Surprising Environmental Benefits of Concrete

Ready-mixed concrete is one of the most environmentally friendly construction materials currently available. When compared to other building products, concrete helps protect our natural resources. Here are a few of the reasons.

## Natural and Recycled Materials ...

Unlike building products relying on scarce or non-renewable resources, concrete is made from local, abundant, readily-available ingredients, most notably, water, aggregate (stone, sand, and gravel), and portland cement (a fine gray powder made from limestone and other abundant, local, natural materials). Many recycled material supplements support these basic ingredients, including slag (a by-product of steel making) and fly ash (a by-product of coal-buring power plants).

The cement-making process also uses recycled materials. High-energy wastes such as old tires can be safely recycled as fuel for cement kilns. Annually, a single cement kiln will recycle up to 1,000,000 tires, conserving fossil fuels and placing less demand on landfill space.

## Concrete Properties Provide Lasting Benefits ...

Ready-mixed concrete is strong, durable, versatile, and resistant to fire, water, and weather. It does not rot, rust, rut, or burn. These inherent properties provide concrete with a longer in-place service life than wood, steel, asphalt, and other construction materials.

Concrete's durability conserves resources by reducing maintenance and the need for reconstruction. Manufactured on a "just-in-time" basis, concrete does not produce the amount of job site construction waste as is associated with steel, sheet goods, or dimensional lumber. At the end of its long service life, concrete can be crushed and recycled as aggregate for road base, asphalt, or new concrete, continuing the cycle of environmental benefits.

## Energy Efficient ...

The thermal mass of buildings made with ready-mixed concrete saves energy year-round by reducing temperature swings within the structure.

During the summer, buildings made with ready-mixed concrete require cooling mainly at night, an off-peak time when utility companies produce power more efficiently, conserving fossil fuels.

In the winter, a concrete building will cost less to heat than a comparable structure made from competing building materials.