

Pervious Concrete

What is Pervious Concrete?

Pervious concrete is made from carefully controlled amounts of water and cementitious materials used to create a paste that forms a thick coating around aggregate particles. Unlike conventional concrete, the mixture contains little or no sand, creating a substantial void content – between 15% to 25%.



APPLICATIONS:
Sidewalks
Parking Areas
Residential Flatwork
Drainage Areas
Courtyards
Embankments

Why Choose Pervious Concrete?

- Green Building alternative suitable for many applications
- Natural run-off allows rainwater to drain directly to sub-base
- Reduced construction requirements for drainage structures
- Reduced pollution prevents environmental damage



The ability of pervious and the sub-base to filter deleterious materials dramatically reduces the effects of damaging chemicals, such as gas and oils, to the environment. Once the chemicals are trapped in the concrete and sub-base, biological activity breaks these materials down into their natural harmless form. Also, pervious reduces the amount of local erosion being caused by runoff from conventional concrete structures. The EPA recognizes pervious concrete as a Best Management Practice (BMP), and building owners and designers are realizing more efficient land utilization while acquiring LEED credits through the use of pervious concrete structures.

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Where can I Use Pervious Concrete?

Hardscape

Low-volume pavements
Residential roads, alleys, & driveways
Low-water crossings
Parking lots
Sidewalks & pathways
Patios
Tennis courts
Swimming pool decks
Pavement edge drains

Walls

Load bearing and other walls
Sound barriers

Floors

Foundations/floors for greenhouses,
fish hatcheries, aquatic amusement
centers, and zoos

Other

Sub base for conventional concrete
pavement
Slope stabilization
Artificial reefs
Well linings
Hydraulic structures
Tree grates in sidewalks
Groins and seawalls

Placing Pervious Concrete



Jointing Pervious Concrete



Curing Pervious Concrete



Getting Started

Pervious Concrete is a very design dependent mixture and should achieve a 15-25% air void structure. Aggregate gradation is one of the key elements of a successful project. The aggregate must be clean and appropriately graded. 3/8" 'rounded gravel' or limestone is typically used. Cement contents vary but generally fall in the 500 – 650 lb/yd³ (300-385 kg/m³) range. Water content is kept as low as possible in order to maintain the void structure - approximately 0.25 – 0.32 water: cement is used.

