

ENVIRONMENTALLY SUSTAINABLE CUTOFF WALL INSTALLATION

# ECwall system



# eco clay wall system

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Eco Clay Wall, or EC Wall in short, is a method to install underground cutoff walls by mixing in-situ soil with cutoff materials made of clay minerals. Highly homogenous and impervious soil-clay walls are produced without generating spoils or wastes.

### ADVANTAGES

#### SUSTAINABILITY

EC Wall minimizes the burden on the environment. Materials to be used are natural product – clay minerals. No spoils are generated in the process – a great advantage when applied to in-situ containment of contaminated soil.

#### CUTOFF CAPABILITY

The hydraulic conductivity of EC Wall is less than  $10^{-7}$ cm/sec.

#### DURABILITY

Clay-based materials produce more durable cutoff walls than cement-based walls.

#### EARTHQUAKE RESISTANCE AND STABILITY

Plastic walls made of clay-based materials flexibly follow ground deformation without developing cracks. Wall quality is less deteriorated by earthquakes.

#### ADSORPTION CAPABILITY

Clay materials, capable of adsorbing contaminants, deter migration of contaminants through the wall.

#### COST EFFICIENCY

EC Wall eliminates the cost of spoil handling and disposal.



Wall product(700mm thick)

# INSTALLATION

EC Wall is applicable to most of the deep soil mixing techniques. It is particularly suitable for multiple-column soil-mixing wall technique (e.g. RSW method) or equal-thickness soil-mixing wall technique (e.g. TRD method).

EC Wall installation using RSW

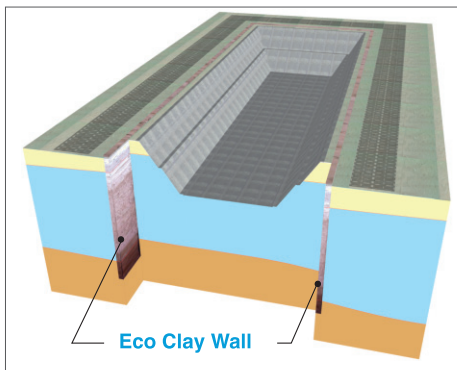


EC Wall installation using TRD

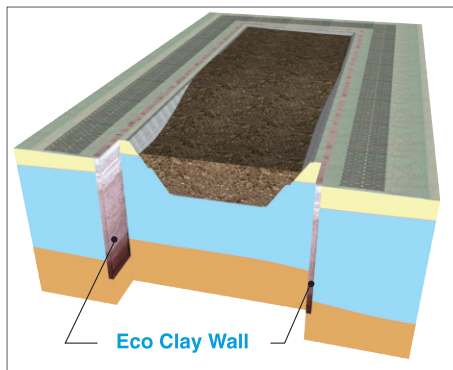


# APPLICATION

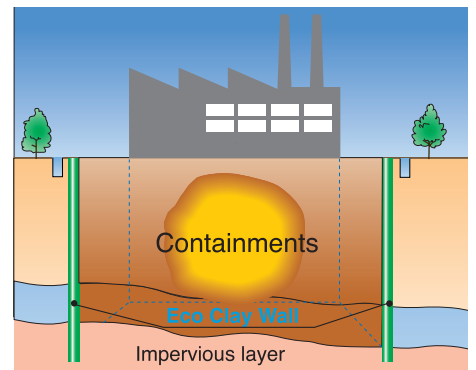
ECO CLAY WALL, with its superior imperviousness, earthquake resistance, and durability, is applied to cutoff walls for landfill, reservoir and containment of contaminated soil.



Cutoff walls for landfill



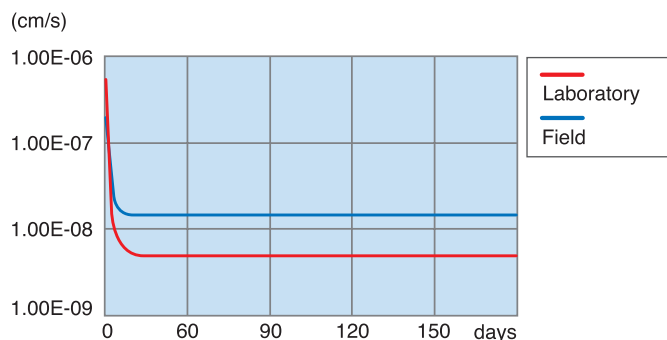
Cutoff walls for reservoir



Containment of contaminated soil

# HYDRAULIC CONDUCTIVITY

EC Wall has a superior cutoff capability. The typical hydraulic conductivity of EC Wall is in the order of  $10^{-8}$  to  $10^{-9}$  cm/sec.



**EC** wall system  
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