



Sumapaz Road Tunnel



ABOUT THIS PROJECT:

Market Segments:
Tunnels

Waterproofing:
CIP SA - Ingeniería para el Concreto

Products Used:
Xypex Concentrate
Xypex Patch'n Plug

Location:
Bogotá to Girardot,
Colombia

The Sumapaz Tunnel, part of the busy Bogotá to Girardot route in Colombia, is a crucial transportation corridor that facilitates both tourism and cargo movement. However, the tunnel faced significant water ingress issues due to the surrounding topography, leading to serious structural concerns.

CIP SA - Ingeniería para el Concreto was consulted to provide a solution to these water leakage issues. A combination of Xypex products were selected for both immediate and long-term waterproofing needs.



Xypex Patch and Plug was first applied to address the active water leaks. This fast-setting hydraulic material was specifically chosen for its ability to quickly seal areas of significant water ingress. Its rapid setting time made it ideal for stopping water flow in critical areas, ensuring that the immediate issue was contained effectively.

Once the active leaks were stopped, Xypex Concentrate was applied as a surface treatment for long-term waterproofing. Applied as a slurry to clean, slightly damp concrete, Xypex Concentrate penetrates deeply into the material, creating a durable barrier against future water ingress.

This product ensures the structure's long-term protection, helping to maintain the tunnel's integrity by preventing further water damage and extending the lifespan of the concrete.



The tunnel is now fully waterproofed, with enhanced resistance to chemical attacks and self-healing properties. These improvements significantly reduce future maintenance costs and operational disruptions. Thanks to the exclusive Xypex waterproofing solutions, the Sumapaz Tunnel will continue to play a critical role in Colombia's transportation infrastructure for many years.