



Vie Di Romans Winery Wine Caves



December 2022

ABOUT THIS PROJECT:

Owner:

Vie Di Romans Winery

Market Segment:

Wine Caves

Products Used:

Xypex Admix C-1000 NF

Location:

Mariano del Friuli, Province of Gorizia, Italy

Wine aging is a precise and delicate process, with multiple threats to the product's final quality.

Concrete wine caves offer a controlled environment that enables winemakers to accurately adjust the lighting, humidity, and temperature, protecting their wine from its greatest threats, evaporation, light, and heat.

PROBLEM

Concrete wine caves are usually underground structures, often subjected to high hydrostatic pressure from the local water table that threatens another critical asset: the concrete.

If water and oxygen reach the reinforcement steel, it begins to corrode or oxidize. The iron in the steel reacts with the water and is oxidized into iron oxide (rust), which has a greater volume than the steel.

When the force of this expansion is greater than the tensile strength of the concrete, it causes cracks.

THE XYPEX SOLUTION

To build the new cave structure, 3,700 cubic meters of concrete was treated with Xypex Admix C-1000NF during the batching stage and poured using concrete pumps, achieving permanent waterproof underground structures such as tunnels and base slabs.



The Xypex chemical treatment reacts with cement and the byproducts of cement hydration to fill the capillaries in the internal structure of the concrete, creating a non-soluble crystalline matrix. The result is concrete that prevents water penetration and other liquids for its entire service life.

The result is a permanently waterproofed structure that allows the wine cave to operate without concerns of water penetration or deterioration of the concrete of its new facilities for their entire service life.

PROJECT BIO

Located in Northern Italy, Vie Di Romans has been operating since the early 1900s. Winery owner Giancarlo Gallo is known to use industry best practices for continuous improvement to achieve the highest quality product.

Over the years, the demand for its products has grown, and Vie de Roman expanded its facilities to 300,000 bottles per year.



The contractors in charge of the expansion selected Xypex Admix C-1000NF as their waterproofing solution as it can be added to the concrete mixture at the batching stage, eliminating the need for expensive membranes or any other waterproofing method, saving time and money in the process.

