

A Perfect Pairing – Wine & Basalite Shotcrete

Lake Country is a municipality located in the Central Okanagan Valley of British Columbia, Canada, which is about 400 km (250 miles) northeast of Vancouver. Home to BC's Wine Country, Lake Country offers tourists many activities including water sports, camping, hiking, golf, and ski resorts.

Thanks to the unique weather and soil conditions present in the Okanagan Valley many wineries and vineyards are situated around the region. Among them the O'Rourke Family Vineyards stands out as one of the first to implement a tunnel system below the bedrock to house its wines.

The tunnels are situated on a 200-acre lot overlooking the water, and will be one of the highlights of the location. The first of its kind in Canada, it will house countless barrels and bottles of wine, and people will be able to walk through and enjoy the sights. Storing the wine in this natural area will provide the perfect temperature of around 15-16 degrees celsius (60 degrees fahrenheit) throughout the year, along with perfect humidity. Given that the tunnels will be in a natural rock formation, no significant installation of heating or cooling systems will be necessary. This will have major environmental advantages as no significant power will be required to keep the wines at the optimum temperature and humidity. Other planned attractions to the winery include a separate ballroom, concert area, and a library housed in the tunnels. The opening date is set for later this year.

But before the winery holds its first tasting some challenges had to be overcome. One of them, and this is where Basalite comes in, involves their shotcrete product. For those of you unfamiliar with shotcrete,



In the process of shooting the concrete



The finished product

it's identical to concrete, except for how it's applied. Concrete is typically poured into forms while shotcrete is applied by blowing it through a nozzle and spraying or shooting it onto the surface, without a form. One very typical application is shooting overhead. The winery is a perfect example of that method.

Basalite provided the dry mix shotcrete, which included steel fibers and accelerator, to aid in the structural shooting overhead in the tunnels. The steel fibers were essential to the structural overhead component of the work, while the accelerator

allowed for the quick curing of the shotcrete. A silica fume enhanced mix was chosen to help with stickiness shooting overhead, as well as to increase strength and reduce permeability.

Basalite is pleased to play a major role in the building of this beautiful and unique facility and hope that if you are in the area stop and tour the O'Rourke Family Vineyards. When you are walking from room to room, be sure to look up once in awhile and checkout our unassuming, but very important, product. It helps the wine taste just a bit more delicious.

— James Marifosque, EIT – Basalite Surrey
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