

Autoclaved Aerated Concrete (AAC)

Autoclaved aerated concrete (AAC) is a mineral-based building material made from sand, water, limestone, cement, and aluminum powder. The mixture is then hardened in an autoclave (pressurized steam chamber). It is a lightweight form of concrete best used as cladding to provide a protective exterior for new and existing buildings. AAC can also be used for low to mid-rise load-bearing walls.



Although AAC has many benefits as a climate-resilient, pest-resistant material, limited supply options and specialised training requirements have constrained its use in British Columbia.

Hazard Resilience

Wildfire



Fire-resistant, with a high hourly fire rating (> 4 hours)

Rain and Floods



Breathability of the material prevents mould.

Windy



Wind resistant with reinforcements

Extreme temperatures



Low/moderate temperature regulation but an excellent insulator.

Seismic



Relatively high compressive strength and light weight contributes to seismic resilience.

As of 2025, recent and credible public estimates of costs were not available. Estimates may be available through local suppliers. The upfront cost of AAC may be higher than conventional concrete but its lightweight nature makes it more affordable to construct with.