

# Calcium Formate

Calcium Formate enhances the construction industry by improving concrete performance and quality.

## Technical Information

Appearance	White, Free Flowing Powder
Purity (Ca(HCOO) <sub>2</sub> )	≥98.0%
Total Calcium	≥30.0%
Lead (Pb)	≤0.001%
Arsenic (As)	≤0.0005%
Loss on Drying	≤0.5%



Calcium Formate serves as an **accelerator**, reducing concrete setting time. By accelerating the cement hydration process, it ensures faster setting and hardening of concrete. The increased acceleration leads to higher **early strength development**, ideal for applications requiring rapid strength gain, such as precast concrete, concrete repairs, and cold weather conditions.

In **cold climates**, Calcium Formate mitigates issues associated with freeze-thaw effect, enabling faster demolding and earlier concrete utilization.



Improvements in **workability, durability** (by reducing the water-to-cement ratio and minimizing the permeability) and **corrosion inhibition** have been attained through the addition of Calcium Formate to the concrete mix. Calcium Formate is also utilized in various grouts and dry mix mortars to improve the setting and hardening, in **tile adhesives** to enhance the adhesion and strength, and as an accelerator in **shotcrete applications**, particularly in tunnel construction, where rapid strength gain is crucial.

Calcium Formate can be used in conjunction with other admixtures like plasticizers and water reducers to optimize concrete performance. Typically added at 0.5-2.5% by weight of cement, its effectiveness may vary with temperature, requiring higher dosages in colder conditions.