



DESCRIPTION

CarbonCure offers a performance enhancing concrete technology that enables producers to achieve increased compressive strengths or reduced carbon footprints through incorporation of carbon dioxide (CO₂) into the concrete production cycle.

PROCESS

The patented technology communicates with existing batch controls to integrate CO₂ injection into concrete production. This leads to the formation of well-dispersed nanomaterials within the concrete that contribute to improving concrete performance.

ADVANTAGES AND APPLICATIONS

The technology may be used to increase the compressive strength performance of a concrete mix. The strength improvement can then be leveraged in the optimization of the mix design for a specific end goal, such as early age strength, 28 day strength or binder efficiency.

DOSAGE RATE

The CarbonCure technology is compatible with almost all concrete types and applications. Dosages of CO₂ supplied will vary based on individual combinations of ingredients. In general, CO₂ dosages within the range of 1-5 fl oz/cwt are recommended for optimum performance.

HANDLING AND USE

The CarbonCure technology dispenses liquid CO₂ supplied by third party vendors. Liquefied CO₂ is contained on site in a refrigerated, pressurized tank provided by a local gas partner. Upon discharge the CO₂ changes into a mixture of gas and a solid white powder.

SAFETY

Safe practices for handling compressed gases, as well as other risks described in the MSDS for CO₂ (CAS# 124-38-9) should be adopted and followed. For additional questions please contact your compressed gas supplier or CarbonCure customer service representative.

COMPATIBILITY

The use of CO₂ in concrete production is not anticipated to impact the concrete slump, air content, color, handling, pumping, placing or curing. No negative interactions are expected with common admixtures or supplementary cementitious materials.