SUMMARY

Mix Design Submittal: CarbonCure Concrete Admixture

Adding CarbonCure to your Mix Design Submittal is the easiest way to lower the carbon footprint of your concrete

Name:
CarbonCure Concrete Admixture

Description:
CarbonCure's technology incorporates carbon dioxide (CO_2) during the mixing process, which acts as a cement hydration-enhancing admixture based on the CO_2 mineralization process. This allows for a reduction in cement use — and a reduced carbon footprint — without compromising the fresh properties, strength, or durability performance of the concrete.

Standard Compliance:
Meets ASTM C494 requirements for Type S, Specific Performance Admixtures.

Benefits:
- Reduces the carbon footprint of concrete
- Improves both early and late stages of compressive strengths
- Enables optimized, lower cement content, and better-performing concrete mixtures

Uses:
- Suitable for ready mix and precast concrete
- Follows the ACI 211 Standard Recommended Practice for Selecting Proportions for Concrete

How It Works:
CarbonCure creates carbon removal technologies that introduce recycled CO_2 into fresh concrete to reduce its carbon footprint, without compromising performance. Once injected into the mix, the CO_2 undergoes a mineralization process (i.e., it chemically converts into a nano-scale calcium carbonate mineral) and becomes permanently embedded in the concrete, which aids in cement hydration efficiency and can result in economic and climate benefits.

CarbonCure Concrete Admixture is very easy to add to the mix design submittal — no additional time or resources are required.

Guidelines for Use:
- **Dosage**: Recommends 0.1 - 10.0 fl oz/cwt of cement. The dosage depends on various factors and requires pre-testing for the best results.
- **Mixing**: Mix for at least 30 seconds after CO_2 injection.

Packaging:
- Comes in bulk and is delivered by tanker truck to an on-site pressurized storage tank for dispensing by means of the CO_2 metering equipment.
- The CO_2 should be 99% pure or higher. Details in data sheet CAS No: 124-38-9.

Equipment:
CarbonCure concrete admixture is dispensed from a storage tank of liquid CO_2 (sourced from a local industrial gas supplier), and integrated into the regular batch sequencing for concrete mixing.

Notes:
- Continuous testing by the producer is advised, especially with changes in materials or sequencing.
- Ensure regular maintenance for optimum CO_2 injection system performance.