

# TECHNICAL DATA SHEET

POUR IN THE STRENGTH®

## EdenCrete P<sub>z</sub>® - Pozzolanic Mixes



**EdenCrete P<sub>z</sub>® is a carbon nanotube-enriched liquid admixture that elevates concrete structures to new levels of strength and toughness. The intended use of this product is to improve strength and durability in concrete mixes that use pozzolans to replace cement.**

### Features

- Convenient for use in precast and ready-mix concrete operations, including dry-batch and central plant mixers.
- Ready-to-use liquid admixture.
- No special mixing equipment needed.
- Added to the concrete mixture at the plant.

### Primary Benefits

- Improves early strength development in mixes using fly ash and/or slag to replace cement.
- Higher ultimate strength [compressive, flexural, and split-tensile].

### Secondary Benefits

- Improves concrete durability.
- Potential for optimization of concrete mixes to reduce dimensions, steel reinforcement, supplementary cementitious materials, and/or cement.
- Reduces concrete permeability.
- Increases abrasion resistance.
- Reduces shrinkage strain and cracking.

### EdenCrete P<sub>z</sub>® Dosage

It is recommended to use EdenCrete P<sub>z</sub>® at a dosage range of 4 to 32 oz/yd<sup>3</sup> [0.2 to 1.2 L/m<sup>3</sup>] of concrete.

### Application Guidelines

EdenCrete P<sub>z</sub>® can be used in precast/prestressed production, ready-mix operations having either dry-batch or central plant processes, and pump applications such as shotcrete or high-rise construction.

It is the responsibility of the end user to conduct trial batches to ensure the adequate concrete mixture proportions are consistent with the concrete properties needed. Please contact your local EdenCrete P<sub>z</sub>® sales representative for assistance with using EdenCrete P<sub>z</sub>®.

When designing concrete, use a dosage within the recommended range for EdenCrete P<sub>z</sub>® as provided by Eden Innovations LLC.

For initial evaluations of EdenCrete P<sub>z</sub>® in a new concrete mix, a short [1 week] lab study at Eden using customer-supplied target mix materials, is recommended to narrow the recommended range and speed up any subsequent mix development and optimization by Eden or the customer.

### Recommended Sequencing

EdenCrete P<sub>z</sub>® should be added as close to the end of the mixing sequence as possible, after all of the raw materials have been wetted to help achieve maximum dispersion and efficacy. The addition of EdenCrete P<sub>z</sub>® to dry materials in the mixer will impede performance and is not recommended by Eden Innovations LLC. EdenCrete P<sub>z</sub>® should never be diluted with the mix water before batching. EdenCrete® products should be added separately when using multiple products. EdenCrete® and EdenCrete P<sub>z</sub>® may be used in the same concrete batch simultaneously, but the use of separate dispensing systems is required to dose the concrete.

## Areas of Application

- Ready-mixed concrete using fly ash and/or slag to replace cement, where early-strength cannot be sacrificed.
- Precast and prestressed applications such as bridge beams and road barrier, tilt wall construction, etc. for early-strength development and improved durability.
- Concrete beams and suspended slabs where tensile and flexural strength are needed.
- Infrastructures such as water distribution, bridges, dams, and locks where steel corrosion and abrasion are a concern.
- Engineered structures where high steel content causes problems with concrete placement and consolidation.

**Harness  
the strength  
of carbon  
nanotubes  
for your  
next pour.**

## Recirculation

It is recommended to stir **EdenCrete P<sub>2</sub>**<sup>®</sup> well, or for smaller containers shake well, prior to shipment, prior to transfer from one container to another, and/or prior to use in concrete.

Dedicated **EdenCrete P<sub>2</sub>**<sup>®</sup> dispensing systems automatically recirculate with enough agitation to allow for the **EdenCrete P<sub>2</sub>**<sup>®</sup> to be used at any time. Refer to **EdenCrete P<sub>2</sub>**<sup>®</sup> product storage guidelines for full details.

## Transport, Storage, and Handling

**EdenCrete P<sub>2</sub>**<sup>®</sup> should be transported and stored at a temperature of 23–122° F [-5–50° C]. If the **EdenCrete P<sub>2</sub>**<sup>®</sup> is allowed to freeze, thaw and agitate the **EdenCrete P<sub>2</sub>**<sup>®</sup> thoroughly to return product to original state. The tank should be sealed after the **EdenCrete P<sub>2</sub>**<sup>®</sup> is added. Do not store containers in direct sunlight. Properly stored **EdenCrete P<sub>2</sub>**<sup>®</sup> has a minimum shelf life of 12 months.

## Safety

Before handling, refer to the corresponding Safety Data Sheet [SDS] for health, safety, and environmental information.

## Dispensing and Equipment

**EdenCrete P<sub>2</sub>**<sup>®</sup> products are dispensed into the mixer or drum using a direct feed system. **EdenCrete P<sub>2</sub>**<sup>®</sup> should be sequenced immediately after the other admixtures or simultaneously with the tail water. If added to a ready-mix truck in any other sequence, ensure a minimum of 50 revolutions at maximum rpm before placing concrete.

When selecting equipment and plumbing materials, please adhere to the following:

- Utilize pumps composed of stainless steel, nylon, HDPE, or polypropylene with internal seals composed of PTFE/Teflon, SBR/Buna-S, EPDM synthetic rubber, or neoprene.
- Utilize industrial rubber hose with EPDM, SBR, or PTFE liner material.
- Do not use aluminum, unlined steel, or fiberglass tanks for bulk storage.
- Do not use iron, copper, brass, or bronze components in contact with **EdenCrete P<sub>2</sub>**<sup>®</sup>.
- Do not use PVC plumbing [CPVC is acceptable].
- Do not use silicone, FKM/Viton, or NBR/Buna-N seals.
- Do not utilize dispensing equipment or recirculation equipment that is designed for or has been used for **EdenCrete**<sup>®</sup>, as the two products are not approved for mixing prior to their addition to concrete.

## Further Information

For samples and technical service, please contact us [information below] or visit our website at [edencrete.com](http://edencrete.com)

**DISCLAIMER** The information contained in this brochure is based on knowledge and experience with the materials used in the production of the **EdenCrete P<sub>2</sub>**<sup>®</sup> admixture. The application of the **EdenCrete P<sub>2</sub>**<sup>®</sup> admixture is employed by the customer who is outside the control of Eden Innovations LLC. Therefore, Eden Innovations LLC is not liable or responsible for any loss, damage, or injury from the use or application of the **EdenCrete P<sub>2</sub>**<sup>®</sup> admixture product. Furthermore, customer agrees to the waiver of all express and implied warranties, including but not limited, to the implied warranty of merchantability and supersedes any prior or contemporaneous discussions regarding **EdenCrete P<sub>2</sub>**<sup>®</sup> and/or the **EdenCrete P<sub>2</sub>**<sup>®</sup> admixture product.

**Eden Innovations LLC** 12395 Mead Way, Littleton, CO 80125  
Eden Innovations LLC is a wholly owned subsidiary of Eden Innovations LTD, Perth, Australia.  
info@edencrete.com / 303.468.1705 x5349 / [edencrete.com](http://edencrete.com)

EDN1910

 **EdenCrete**<sup>®</sup>  
CARBON STRONG<sup>®</sup>