

TECHNICAL DATA SHEET

POUR IN THE STRENGTH®

EdenCrete P₂7™



EdenCrete P₂7™ 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 all cement-based products including precast and ready-mix concrete operations.
- Ready-to-use liquid admixture.
- No special mixing equipment needed.
- Added to the concrete mixture at the plant or job site.

Primary Benefits

- Improves 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, and/or cement.
- Potential for increased use of supplementary cementitious materials as cement replacement.
- Reduces concrete permeability.
- Increases abrasion resistance.
- May reduce shrinkage strain and cracking.

EdenCrete P₂7™ Dosage

It is recommended to use EdenCrete P₂7™ at a dosage range of 6 to 32 oz/yd³ [0.2 to 1.2 L/m³] of concrete. Contact your EdenCrete® representative for further dosage advice.

Application Guidelines

EdenCrete P₂7™ 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 P₂7™ sales representative for assistance with using EdenCrete P₂7™.

Recommended Sequencing

EdenCrete P₂7™ should be added after all of the raw materials have been wetted, to help achieve maximum dispersion and efficacy. If possible, it should be the final constituent added before the tail water is added. The addition of EdenCrete P₂7™ to dry materials in the mixer will impede performance and is not recommended by Eden Innovations LLC. Avoid diluting EdenCrete P₂7™ with the mix water before batching. EdenCrete® products should be added separately when using multiple products. EdenCrete® and EdenCrete P₂7™ may be used in the same concrete batch simultaneously, but the use of separate dispensing systems is required.

Areas of Application

- Ready-mixed concrete, especially when using fly ash and/or slag to replace cement
- Precast and prestressed applications such as bridge beams and road barrier, tilt wall construction, etc.
- Concrete beams and suspended slabs
- Infrastructures such as water distribution, bridges, dams, and locks
- Engineered structures with dense or complex steel reinforcement

Recirculation

It is recommended to stir or shake **EdenCrete P_z7™** well prior to shipping, prior to sampling, and prior to use in concrete.

Dedicated **EdenCrete P_z7™** dispensing systems automatically recirculate with enough agitation to allow for the **EdenCrete P_z7™** to be used at any time. Refer to **EdenCrete P_z7™** product storage guidelines for full details.

Transport, Storage, and Handling

EdenCrete P_z7™ should be transported and stored at a temperature of 23 to 122° F [-5 to 50° C]. If **EdenCrete P_z7™** is allowed to freeze, thaw and agitate the **EdenCrete P_z7™** thoroughly to return product to original state. The tank should be sealed after the **EdenCrete P_z7™** is added. Do not store containers in direct sunlight. Properly stored **EdenCrete P_z7™** 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_z7™ products can be dispensed into the mixer or drum using a direct feed system. **EdenCrete P_z7™** 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 70 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 aluminum, iron, copper, brass, or bronze dispensing system components in contact with **EdenCrete P_z7™**.
- 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®**, 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

DISCLAIMER The information contained in this Technical Data Sheet is provided in good faith and reflects our current knowledge and experience. It does not constitute a guarantee of specific product properties or performance. Due to the wide variety of raw materials, mix designs, site conditions, and application practices, the user is solely responsible for verifying the product's suitability for the intended use through adequate testing and trials. All risks associated with the use, processing, handling, and application of the product shall remain with the user. Concrete mixes containing high levels of contaminants may be subject to increased risk of surface discoloration. The user must confirm suitability and appearance under project-specific conditions prior to application.