



**Construction  
Products  
Solutions** LLC.

# **CONTROL MOISTURE VAPOR EMISSION WITH CPS ADMIXTURE**

CPS moisture vapor reduction admixture (MVRA) is a non-toxic, VOC-free admixture with a long history of successful installations in the field. CPS admixture is formulated to generate additional hydration products within your mix design while efficiently creating a capillary/integral block within the concrete to shut down moisture vapor movement to within critical levels.

# CPS ADMIXTURE

is a  
**COST-EFFICIENT**  
way to **MITIGATE**  
moisture vapor emission (MVE) *liability.*



## Benefits:

CPS admixture is sourced and manufactured under some of the most statistically relevant and exacting supply production processes available at the most up-to-date and modern chemically green facilities in North America. Results consistently demonstrate a higher specific product gravity without the need to deionize water and base materials. CPS admixture is completely compatible with all floor coverings, coatings, roofing membranes and adhesives for non-porous substrates found in most projects and continues to offer the most cost-effective approach to mitigate your moisture vapor emission (MVE) liability.

- ASTM D5084 – indicates reduced coefficient of permeability
  - Permits flooring to be installed in as little as 7 days after concrete placement
  - Protects concrete finish from moisture vapor emission failure from the concrete
  - Protects against alkali and efflorescence attack from the concrete
  - Warranty can convey upon receipt of concrete batch ticket
- ASTM C1260 – indicates improved resistance to alkali silica reactivity
  - On average 10% reduction of effects of ASR compared to a sample of concrete not dosed with CPS admixture
- ASTM C157 – indicates less shrinkage
  - Reduces slab warp, plastic shrinkage cracking and crazing
- ASTM C39/39M – indicates early strength gain
  - Achieves desired strength weeks before the specified 28 days
- ASTM C494 – indicates compliance with physical requirements of Type S admixture in hardened concrete

## Use:

CPS admixture is applicable / appropriate for use in both normal and light weight concrete across a wide spectrum of mix designs to produce low permeability concrete. Typical uses of CPS admixture include but are not limited to:

- Slabs receiving moisture sensitive flooring and structural concrete roof decks o w/cm from 0.41 to 0.53
- Elevator pits and retaining wall w/cm from 0.41 to 0.53
- Water retaining structures such as swimming pools & cisterns w/cm from 0.41 to 0.53
- Tunnels and other underground structures
- Civil engineering projects of any magnitude (such as secant piles, roadways, dams and bridges)

***CPS admixture has the above w/cm range limitations.***

***Concrete Moisture Solutions would be happy to participate in your testing of the desired project mix to determine if CPS admixture can achieve the desired concrete properties.***

## A SOLID PERFORMER



## Placement:

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- CPS admixture has little to no impact on concrete set times when compared to equivalent mix designs without the CPS admixture when placed in comparable conditions.
- Use of surface-applied evaporation retarders as necessary for ambient conditions does not negatively impact the CPS admixture dosed concrete.
- Any ACI-accepted method for curing concrete is completely acceptable for curing concrete with CPS admixture. Due to the internal curing properties of the CPS admixture, the curing time with moisture retaining covers can usually be reduced by half, depending on ambient conditions.  
**NOTE: Slabs to receive moisture sensitive flooring should only be cured with plastic sheets, waterproof paper, or self-dissipating curing compounds per ACI guidelines.**
- For slabs on ground, it is a requirement of the flooring industry that all such slabs be constructed in direct contact with an ASTM E1745 compliant vapor retarder installed per ASTM E1643, ACI 302.2R and in accordance with ASTM F710.

## Mixing:

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- CPS admixture can be added at the batch plant or at the project site.
- For best results, dose CPS admixture directly to freshly mixed concrete at the end of the batch process.
- Mix thoroughly to ensure uniform distribution of CPS admixture throughout the mix.
- Rapid drum rotation for a minimum of seven (7) minutes is recommended.
- Compatible with fly ash and granulated ground blast furnace slag.
- Compatible with all other chemical admixtures.  
Exception: crystalline growth products and other SRAs.
- Use of steel or mesh fibers can compromise moisture vapor protection of installed flooring but are completely compatible with CPS admixture dosed concrete.

## Dosage:

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For normal and lightweight mix designs between 0.41 and 0.53 w/cm:

- 12 ounces (355 ml) per 100 pounds (45.36 kg) of total cementitious material
- Replace mix water on a one-for-one basis with the CPS admixture in an amount equal to the reviewed and appropriate yd3 CPS admixture dosed amount based upon total cementitious material.

**Consult directly with manufacturer on all mix designs outside this published range.**

**37%**

**Reduction in Shrinkage  
ASTM C-157 Testing**

**68%**

**Reduction in Corrosion  
ASTM C-143 Testing  
(ponding)**

# LIMITED LIFETIME WARRANTY

## Warranty:

CPS Admixture warrants that its CPS admixture ("product"), will reduce the permeability of structural concrete with mix designs between 0.41 and 0.53 water to a total cementitious material ratio to not exceed an in-place permeability performance of  $6.0 \times 10^{-8}$  cm/s per ASTM D5084 during the concrete's lifetime; exclusive of any cracking regardless of cause. CPS admixture product is warranted to be free from manufacturing defects and to meet the technical properties of the current technical data sheet if used as directed within shelf life and never allowed to freeze. The user of the CPS admixture product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s).

**This is only a short version of the CPS admixture warranty. Full warranty information available online.**

## Storage:

Store CPS admixture above 36° Fahrenheit (2.2° Celsius) and never allow to freeze. Should product freeze, return to manufacturer for reincorporation at purchaser's shipping expense.

Do not store in direct sunlight for long periods nor in unopened containers. CPS is a water-based admixture and significant evaporation could occur if not protected from excessive heat or sunlight. CPS admixture has a one-year shelf-life if stored properly in original, unopened packaging material.

**NOTE: For best results, it is recommended that all product be used within nine months.**



For technical assistance, contact your CPS Admixture regional manager or contact us directly.

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