

Technical Data Sheet MVRA 900

(Moisture Vapor Reduction Admixture)

Proactive Concrete Solutions from
ISE Logik • October 2023

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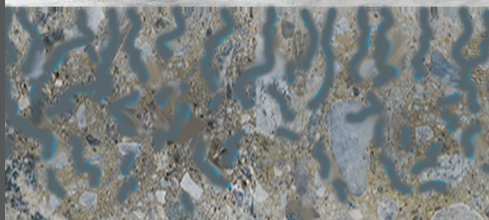
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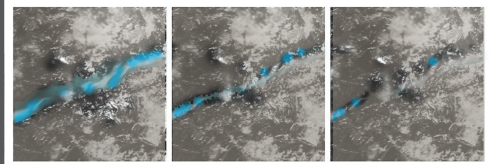
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With ISE Logik MVRA 900



Moisture vapor is stopped in its tracks.



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Description

MVRA 900 is a non-toxic, VOC-free, liquid admixture formulated to react with hydroxide ions produced during the cement hydration process. In doing so, MVRA 900 creates additional hydration products throughout the capillary matrix thereby shutting down moisture vapor movement through and out of the concrete. Produced under the industry's most exacting manufacturing processes, MVRA 900 contains no chloride-based materials and does not promote nor contribute to corrosion of embedded or reinforcing steel.

MVRA 900 has been specifically formulated for use in structural normal and lightweight concrete to receive flooring or roofing but can be used in any interior or exterior structural concrete where moisture vapor emission is a concern.

Benefits

MVRA 900 has been proven to significantly enhance the physical properties of ready-mixed concrete through extensive independent testing.

- Type S Admixture (per ASTM C494/C494M)
 - Full compliance with published requirements
- Reduced Permeability (per ASTM D5084):
 - 98% less permeable as compared to non-treated specimen
 - Permits flooring to be installed in as little as 8 days after concrete placement
 - Protects final slab finish from concrete moisture vapor emission
 - Protects against alkali and efflorescence attack from the concrete
 - Inhibits corrosion due to decreased permeability of concrete
- Mitigating Effect on ASR (per ASTM C1260)
- Mitigating Effect on Shrinkage (per ASTM C157)
 - Reduces slab warp, plastic shrinkage cracking and crazing
- Rapid Strength Gain (per ASTM C39/39M):
 - Achieves design strength in as little as three days after casting of specimen due to more effective use of mix water throughout the concrete matrix, promoting curing from within, and increasing overall hydration efficiency
- Full Product Transparency
 - Independently published Health Product Declaration (HPD) and Environmental Product Declaration (EPD)

Packaging

MVRA 900 is available in the following quantities:

- 15 gallon mini-drums
- 55 gallon drums
- 275 gallon totes

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ISE Logik is fully committed to providing product transparency and low-VOC, sustainable, and innovative products for moisture control in concrete.



Sustainable Minds®
Transparency Catalog

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Dosage

Dosage per cwt total		
w/cm ratio mix	cementitious material	mix water adjustment
0.31 to 0.54	12 ounces	yes; one-for-one basis

Mixing

MVRA 900 can be added at the batch plant or at the project site. For best results, MVRA 900 should be added directly to freshly mixed concrete at the end of the batch process with the tail water.

- Mix thoroughly to insure uniform distribution of MVRA 900
- 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
- Compatible with steel or mesh fibers
- Does not promote corrosion of embedded reinforcement

Placement

MVRA 900 has little to no impact on concrete set times when compared to equivalent mix designs without the MVRA 900 admixture.

- Use of surface applied evaporation retarders as necessary for ambient conditions does not negatively impact the MVRA 900 dosed concrete.
- Any ACI accepted method for curing concrete is completely acceptable for curing concrete with MVRA 900. Due to the internal curing properties of the MVRA 900 admixture, the curing time with moisture retaining covers can usually be reduced by up to 50%, depending on ambient conditions.
- 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 and in accordance with ASTM F710.
- NOTE: ISE Logik is available to provide guidance for curing methods for slabs receiving moisture sensitive flooring, coatings, or roofing.

Storage

Store MVRA 900 above 32° Fahrenheit (0° Celsius) and do not allow to freeze. Should product freeze, contact manufacturer. Do not store in direct sunlight. Do not store in unapproved containers. Product should be used within two years of purchase.

Technical Data

• Physical state	– liquid
• Odor	– odorless
• Color	– hazy whitish liquid
• Freezing point	– 32° F (0°C)
• Boiling point	– 212° F (100°C)
• Volatile Organic Compounds (VOCs)	– 0g/l

ISE LOGIK warrants that its MVRA 900 (“product”), will reduce the permeability of structural concrete with mix designs between 0.31 and 0.54 water to total cementitious material ratio to not exceed an in-place permeability performance of 6.0×10^{-8} cm/s per ASTM D5084 during the concrete’s lifetime; exclusive of any cracking regardless of cause. ISE LOGIK warrants its MVRA 900 product 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. Full warranty information available online.