

Product Data Sheet

Product Name:

Barrier-1 High Performance Concrete Admixture

Manufacturer:

Barrier-1 Inc
1901 Tumblewater Blvd.
Ocoee, Florida 34761
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Product Description:

Barrier-1 is a sodium silicate-based, complex formula that is free of all volatile organic compounds (VOC). It is specifically designed to have a natural chemical reaction with pre-existing elements inside the concrete to eliminate the route of moisture vapor emission through concrete by closing down the integral capillary system. The chemical reaction forms a permanent barrier (capillary break) which will become integral to the concrete and irremovable.

Advantages:

By closing down the capillary system, hydration is uniform resulting in: higher density, higher strength, abrasion resistance, reduced slab curl, and concrete that is virtually impermeable.

Technical Data:

Appearance: Colorless
Odor: None
Toxicity: None
Flammability: None
Ph: 11.3
Shelf Life: Indefinite
Weight: 11.2 lbs per gallon
Freeze Temp: 32°F
Storage Temp: above 36°F
Solvent: Water
Acid Resistance: Excellent
Hazardous Vapors: None
Capillary Break: Calcium Silicate Hydrate
Installation: All concrete

Environmental Considerations:

Barrier-1 is environmentally safe and contains no VOCs. Further, Barrier-1 contains an anti-microbial biocide to inhibit mold and bacteria growth.

Dispensing:

Barrier-1 is added at a rate of 14oz (397 g) per 100 lbs. of cementitious materials at the tail end of the

load and should be dosed within plus or minus 3%. Additional dosage may be required based on the mix design. Due to ease and accuracy of dosing, it is recommended that Barrier-1 be added at the batch plant however it can be added directly at the jobsite.

Jobsite Mixing:

Add the Barrier-1 Concrete admixture to the concrete truck and let drum rotate for 7 minutes before discharge.

Curing:

Barrier-1 recommends the concrete be cured for 24 hours after finishing operations are complete by placing minimum 2mil polyethylene plastic on the concrete slab.

Additional Requirements:

A representative of Barrier-1 manufacturer must be present at the jobsite during placement of the first batch of treated concrete. Do not proceed without this representative being present for certification.

Other admixtures may be used in the same concrete batch with Barrier-1 provided that such admixtures are added separately and the combination has no deleterious effect on the concrete. The water-to-cementitious material ratio (w/cm) is critical and it is imperative to comply with the mix design. Barrier-1 is used in lieu of that portion of the mix water, not in addition to the mix water. Use of plasticizers and/or water reducers is recommended to achieve slumps greater than 4".

Warranty:

Barrier-1 is formulated to eliminate the route of moisture vapor emission through concrete and meets or exceeds all guidelines pertaining to moisture emission as established by the flooring industry. This admixture carries a standard manufacturer's construction warranty for five (5) years against moisture related flooring failure, including all finish floor materials and labor. Contact manufacturer for more information on warranty condition, duration and remedies.

Maintenance:

No Maintenance is required.

Technical Services:

Trained service personnel offer design assistance and technical support. For technical assistance contact: Richard Koon, Barrier-1 407-484-2604, rakoon@barrier-1.com

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