Vapor Lock™ 20/20 Quality Information

Vapor Lock™ 20/20 is manufactured with great pride by The Specialty Products Group, Inc. Here is an outline of some of the benefits of Vapor Lock™ Concrete Admixtures.

1. Vapor Lock™ has been approved by independent lab testing as an ASTM C 494 Type S concrete admixture; no other competitor in this segment has this important industry approval. The independent lab was an AASHTO approved testing agency and test results will be provided upon request.

2. The Specialty Products Group, Inc., uses US domestically acquired reactive materials when manufacturing Vapor Lock™ 20/20, which are finely & extensively graded and washed to a food use standard, all other manufacturers in this segment use industrially graded materials. The superior quality raw material provides superior performance in industry standard testing ASTM D5084 and a purer color.

3. Manufacturing Quality Control-As the only multi-line manufacturer in this segment and enjoying a manufacturing line with a 30-year history and an extreme focus on Quality, SPG has a significant advantage over the competition. This manufacturing Quality Control brings additional Quality Assurance to the process.
    a. Quality Standards in excess of any existing applicable ISO standard are exceeded by SPG.
    b. An Independent Certificate of Analysis is required for all raw materials to ensure it meets SPG's stringent standards.
    c. Vapor Lock™ 20/20 is decanted post production with specialized filtration equipment to ensure optimal purity.
    d. 100% of all materials manufactured by SPG are tested to ensure product design standards are met.
    e. A batch retain is kept from each manufactured batch for future inspection.

4. Quality Assurance- The purpose of this section is to offer additional protections to the project to ensure Vapor Lock™ 20/20 is placed in the concrete and that proper space conditioning and flooring installation procedures are followed.
    a. Ready Mix Supplier Certification is required to use Vapor Lock™ 20/20.
    b. Concrete Finisher Certification is required to use Vapor Lock™ 20/20.
    c. Hydrosphere markers are an additional ingredient in Vapor Lock™ 20/20 to ensure its presence in the concrete. SPG has the ability to test each project using targeted spectrographic analysis to additionally verify the presence and approximate dosing range of Vapor Lock™ 20/20 within the concrete matrix. This technology is unique to Vapor Lock™ within the concrete industry and serves as an additional Quality Control element to ensure Vapor Lock™ inclusion in concrete.

5. Quality Control- SPG recognizes the importance of success to this and all projects, the End-user and the involved AEC community are all stakeholders. SPG has a strong vested Warranted interest, with considerable financial exposure, in verifying achieved concrete design parameters, field conditions and flooring installation procedures are correct for the application. Vapor Lock™ 20/20 has a 100% track record of success and the benchmark field testing that occurs is part of the process. These steps protect all stakeholders
    a. Industry standard ASTM D-5084 is performed on all Warranted projects.
    b. On site moisture testing is conducted at no charge by SPG personnel.

6254 Skyway Road, PO Box 915, Smithville ON, L0R 2A0, Canada
3909 Witmer Road, Unit 1014, Niagara Falls, NY 14305-1239
905.957-4626 877.957.4626 Fax: 905.527.0606 info@spggogreen.com www.spggogreen.com

c. On site bond tests are pulled by SPG personnel, at no charge, measured in Newton's this is an additional strong indicator of future success. The bond helps establish sound flooring procedures such as ambient conditions, rolling, open time and acclimatization of materials.
d. New test methods are being developed in coordination with the flooring industry.

6. If the slab underperformed in any area of testing it would be topically treated with SPG products at no extra charge to the end-user.

7. Here is a partial list of testing performed with Vapor Lock Concrete Admixtures:

ASTM designation	Title	Results
C39/C39 M	Test Method for Compressive Strength of Cylindrical Concrete Specimens	2.1-.5%Increase over Control-28 days
C78	Test Method for Flexural Strength of Concrete (UsingSimple Beam with Third-Point Loading)	4-1% Increase overControl-28 days
C138/C138 M	Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete	1%Decrease over control-28 days
C143/ C143M	Test Method for Slump of Hydraulic-Cement Concrete	0% Change against Control
C157/ C157M	Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete	-0.021% Avg 3 Tests
C231	Test Method for Air Content of Freshly MixedConcrete by the Pressure Method	0.3% Increase overControl
C403/ C403 M	Test Method for Time of Setting of Concrete Mixtures by Penetration Resistance	Inintial set Vapor Lock decreased setting timeby 1 minute
C403/C403 M	Test Method for Time of Setting of ConcreteMixtures by Penetration Resistance	Final set Vapor Lockdecreased setting time by 2 minutes
C666/ C666M	Test Method for Resistance of Concrete to Rapid Freezing and Thawing	1.1% Improved Durability Factor overControl
D5084	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using aFlexible Wall Permeameter	40% Increase Over other WVRA Products
D5084	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using aFlexible Wall Permeameter	500% Increase over Crystalline GrowthAdmixture

Pass

ASTM designation	Title	Results
C494/ C494M	Standard Specification for Chemical Admixtures for Concrete	Pass
NSF-61	Approval Testing for use with Potable DrinkingWater	Pass

8. The Vapor Lock™ 20/20 Warranty is a Ten-Year Full Warranty that includes Material & Labor to replace any flooring or roofing material failed due to moisture in or passing through the concrete.

9. Projects that use Vapor Lock 20/20 will receive a 3rd party insurance policy from Lloyd's of London in the amount of $10,000,000.00 that will cover the cost of replacement of Warranted moisture sensitive coatings and adhesives due to moisture related failure or adhesive bond loss. The end-user will be named in the Lloyd's policy as an additional insured.

10. Vapor Lock™ 20/21 carries a 3-year Warranty against exterior concrete spalling, contact SPG for further information.

11. Vapor Lock 20/21 in addition to having ASTM C494 approval also enjoys NSF 61 approval for use in contact with potable water.

12. The Vapor Lock™ technology has been manufactured on the same production line to the same exacting Quality standard for over 25 years.