



Vapor Lock Action Report

- Outlining the protocols to establish the Industry's leading MVRA Warranty & Insurance.

Vapor Lock™ 20/20 - ASTM C494 Type S Admixture

MVRA - Moisture/Vapor Reducing Admixture

For Warranted & Insured Flooring & Coatings Installations

STEP 1



03 00 00 - Concrete
*03 05 13 - CONCRETE MOISTURE
VAPOR REDUCING ADMIXTURE (MVRA)
& POROSITY INHIBITING ADMIXTURE
03 30 00 - Cast-in-Place Concrete
03 40 00 - Pre Cast Concrete
03 50 00 - Cast Decks and Underlayment
03 70 00 - Mass Concrete

Vapor Lock 20/20 Moisture/Vapor Control concrete admixture is sold exclusively through the commercial Ready Mix producers and is usually bid as part of Section 03 05 13 - CONCRETE WATER VAPOR REDUCING ADMIXTURE. Vapor Lock is priced as a "Premium" to their normal concrete package with the price falling within a range. Discerning architects, engineers, and elite contractors - anyone fighting the flooring installation critical path.

Also a note in Section 09 6100 - both calcium chloride and "in-situ" relative humidity are **not required**. This protocol supercedes all moisture testing.

For slab-on-grade applications, the proper placement of a Class A vapor retarder (per ASTM E1745) is required. Conditioned and tested per ACI, becomes a Barrier. Six inch overlap on main sheets, taped and mastic around penetrations, installed per ASTM E1643 & manufacturers instructions. Pictures are submitted and kept on file. Concrete is installed **on** retarder/barrier. Any aggregate layer may go below vapor retarder/barrier. A mix of between 0.42-0.52 water/cementitious material is the norm. Mixes outside of this range need express permission.

STEP 2



STEP 3



During each day of Vapor Lock concrete placement, 2 cylinders are pulled randomly from two different trucks. Of those two cylinders, one is tested per ASTM D5084 - Coefficient of Permeability (a 23-page protocol). This is the state-of-the-art test for concrete permeability (permeance), and it illustrates by day 28 that the Vapor Lock is in the mix - and working. A measurement of the movement of moisture over time - centimeters per second through the concrete, converted to US Perms. **0.174 US Perms is our MAXIMUM perm rating.** Actual results are usually substantially lower.

Vapor Lock Action Report, continued

STEP 4

Prior to the flooring installation, two protocols are executed. First, Mat/Bond Tests. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring clearly outlines several samples of exact adhesive and exact flooring should be tested. After test sections are adhered, three to seven days later, these samples are “pulled up” and the force required to remove the flooring is judged. Usually, one sample of each flooring sample will suffice, on each slab/level of a building. This is performed by the flooring contractor in tandem with Step 5 below.



STEP 5



Before ‘in-situ’ and calcium chloride there was the Plastic Mat Test. Around for over 60 years, results of high moisture content manifested in darkened concrete and water droplets - well it's back as ASTM D4263 Plastic Sheet Test. Today, we are able to provide a quantitative measurement - ASTM F2659 Tramex Hand Meter. In several locations, 3' x 3' pieces of plastic or rubber are taped and weighted down for a minimum of 72 hours. Our concern here lies not in the initial % Moisture Content surface reading, but the change (delta) on the second reading. There should be no more than a 0.3% delta, within a “conditioned environment”. This is performed by your Vapor Lock representative, usually next to the above, Step 4.

ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring states in Section 5 Testing Procedures (5.1.1) *“Consult the resilient flooring manufacturer, the adhesive manufacturer, the underlayment manufacturer’s written instructions, or combination thereof, for their acceptable test methods. If these instructions are in conflict, the most stringent requirements shall apply.”* - www.rfaphl.org/uploads/documents/F710.xaob6984_red.pdf Vapor Lock 20/20 Integral admixture would fall under these groups and clearly all five levels incorporating 6 separate and involved ASTM protocols are way beyond calcium chloride and “in-situ” testing. From your first concrete installation through all flooring installations, critical paths are met and ultimately protected by a flawless 10-Year Plus Warranty - *IF YOUR FLOOR FAILS - WE’LL REPLACE IT*. This warranty system is backed by a *Project Specific Insurance (non-aggregate) Policy* insured up to \$20 Million Canadian dollars by Lloyds of London (~\$16M US). Everything listed here is wrapped into the ready-mix pricing of Vapor Lock - when you ask for Vapor Lock as part of your concrete mix design package.



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310.650.4263

CERTIFICATE OF INSURANCE

DATE (MM/DD/YYYY)
April 16, 2017

BROKER



86 Woodlawn Road West
Guelph ON N1H 1B2

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policies below.

ISSUING COMPANIES AFFORDING COVERAGE

| | |
|-----------|--|
| COMPANY A | Provided by Certain Lloyd's of London Underwriters B088860277H16A |
| COMPANY B | |
| COMPANY C | |
| COMPANY D | |

INSURED'S FULL NAME AND MAILING ADDRESS

Specialty Products Group Inc.
6254 Skyway Drive
PO Box 915



Smithville ON. L0R 2A0



COVERAGES

This is to certify that the policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirements, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| CO LTR | TYPE OF INSURANCE | POLICY NUMBER | POLICY EFFECTIVE DATE (MM/DD/YYYY) | POLICY EXPIRATION DATE (MM/DD/YYYY) | LIMITS (Canadian dollars unless indicated otherwise) | |
|--------|---|---------------|------------------------------------|-------------------------------------|---|---------------|
| A | GENERAL LIABILITY | CHES0020 | 04/16/2017 | 04/16/2018 | EACH OCCURRENCE | \$ 20,000,000 |
| | COMMERCIAL GENERAL LIABILITY | | | | GENERAL AGGREGATE | NO AGGREGATE |
| | <input type="checkbox"/> CLAIMS MADE FORM | | | | PRODUCTS & COMPLETED OPS. | \$ 20,000,000 |
| | <input checked="" type="checkbox"/> OCCURRENCE FORM | | | | PRODUCTS AND COMPLETED OPS. AGGREGATE | \$ 20,000,000 |
| | <input type="checkbox"/> CROSS LIABILITY | | | | BODILY INJURY & PROPERTY DAMAGE | \$ 20,000,000 |
| | <input type="checkbox"/> TENANTS LEGAL | | | | RIP AND TEAR | \$ 250,000 |
| | <input type="checkbox"/> LIABILITY NON-OWNED | | | | POLLUTION | \$ 100,000 |
| | <input type="checkbox"/> AUTOMOBILE | | | | ERRORS & OMISSIONS | \$ 500,000 |
| A | AUTOMOBILE LIABILITY | | | | \$ | |
| | DESCRIBED AUTOMOBILE FORM | | | | \$ | |
| | ALL OWNED VEHICLES | | | | \$ | |
| | ALL LEASED VEHICLES | | | | \$ | |
| | EXCESS / UMBRELLA LIABILITY | | | | \$ | |
| | UMBRELLA FORM | | | | \$ | |
| | OTHER - | | | | \$ | |
| | PROPERTY | | | | \$ | |
| | BROAD FORM | | | | \$ | |
| | NAMED PERILS | | | | \$ | |
| | OTHER | | | | \$ | |
| | | | | | \$ | |

ADDITIONAL INSURED

The following is hereby added as Additional Insured(s) on the Commercial General Liability but only with respect to liability arising from operations performed by the Named Insured:
- N/A

DESCRIPTION OF OPERATIONS/LOCATIONS/ SPECIAL ITEMS

OPERATIONS: Ad-Mixture Manufacturer

CERTIFICATE HOLDER

None

CANCELLATION

Not applicable

AUTHORIZED REPRESENTATIVE

Matt Nelson, Account Executive