SECTION 09 05 61

COMMON WORK RESULTS FOR FLOORING PREPARATION

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\*\* NOTE TO SPECIFIER \*\* ISE Logik Industries; concrete water proofing admixture.  
  
This section is based on the products of ISE Logik Industries, which is located at:5635 Iron Works Rd.Theodore, AL 36581Toll Free Tel: 877-549-5159Tel: 585-474-3553Email: [request info (decraft@iselogik.com)](https://arcat.com/rfi?action=email&company=ISE%252BLogik%252BIndustries&message=RE%253A%2520Spec%2520Question%2520(09050ise)%253A%2520&coid=49683&spec=09050ise&rep=&fax=)  
Web: <http://www.iselogik.com>   
  
 [ [Click Here](https://arcat.com/company/ise-logik-industries-49683) ] for additional information.  
No one is more knowledgeable and dedicated to stopping moisture vapor in its tracks, for floors and roof decks, than ISE Logik. ISE Logik has been dedicated to Lean Construction practices and the freedom from the costly dependence of concrete moisture testing as a standard building protocol since the company�s beginning. It is the #1 specialist in moisture vapor mitigation for new concrete slab construction or floor renovation over existing concrete. As a leader in educating the industry through webinars and articles, ISE Logik participates on various ASTM committees to establish standards and best practices in roofing, flooring, and waterproofing.  
  
ISE Logik products are listed as Construction Products-Building Products Category in Division 3 (Concrete) and Division 9 (Finishes-Flooring) Select ISE Logik products also carry HPD and NSF labeling ISE Logik admixtures are formulated to stop moisture migration and warranted to 100% RH with no moisture testing required.  
  
We are here to help architects, specifiers, general contractors, concrete flooring and roofing contractors, and installers have successful time and money-saving installations over concrete anywhere in the U.S.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Preparation of interior concrete floor slabs regardless of age or elevation to receive the following types of adhered floor coverings:
       1. Broadloom carpet.
       2. Carpet tile.
       3. Cork.
       4. Epoxy Terrazzo.
       5. Fluid applied and resinous flooring.
       6. LVT and LVP.
       7. Resilient tile and sheet.
       8. Rubber tile and sheet.
       9. Thin-set ceramic tile and stone tile.
       10. Wood.
    2. Preparation of all interior concrete floor slabs regardless of age or elevation scheduled to receive loose-laid floor coverings.
    3. Testing of concrete floor slabs for dew point, moisture, substrate surface absorption and alkalinity.
    4. Smoothing compound, leveling compound, and patching compound.
    5. Remedial moisture vapor emission control for concrete floor slabs.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 35 19 - Colored Concrete Finishing.
    2. Section 03 30 00 - Cast-in-Place Concrete.
    3. Division 09 - Adhered Flooring Sections.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
       1. ASTM C109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens).
       2. ASTM C472 - Standard Test Methods for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete.
       3. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
       4. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
       5. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
       6. ASTM F3191 - Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring.
       7. ASTM F3311 - Standard Practice for Mat Bond Evaluation of Performance and Compatibility for Resilient Flooring System Components Prior to Installation.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Smoothing Compound, Leveling Compound, Patching Compound, Adhesive, and Floor Covering Manufacturers' Product Literature: For each specific combination of substrate, floor covering, and adhesive to be used; showing:
        1. Manufacturer's required moisture limits and test methods.
           1. No such moisture testing shall be required where moisture vapor reduction admixture was required as part of the concrete mix design.
        2. Manufacturer's required alkalinity limits and test methods.
        3. Manufacturer's required substrate surface absorption/porosity test methods.
        4. Manufacturer's required concrete surface profile.
        5. Manufacturer's required bond/compatibility test procedure.
     3. Testing Organization's Report:
        1. Description of areas tested; include floor plans and photographs if helpful.
        2. Summary of conditions encountered.
        3. Copies of moisture and alkalinity test reports.
        4. Copies of concrete substrate water absorption test report.
        5. Summary of concrete surface profiles encountered.
        6. Copies of specified test methods.
        7. Recommendations for remediation of unsatisfactory surfaces.
        8. Submit report to Contractor.
        9. Submit report not more than two business days after conclusion of testing.
     4. Adhesive Bond and Compatibility Test Report.
     5. Remedial Moisture Vapor Emission Control Materials Product Data: Manufacturer's published data on each product to be used for remediation.
        1. Manufacturer's qualification statement.
        2. Manufacturer's installation instructions.
     6. Specimen Warranty:
        1. Copy of warranty to be issued by moisture vapor emission control manufacturer.
        2. Copies of smoothing compound, leveling compound, patching compound, adhesive, and floor covering manufacturers' standard warranty form in which manufacturer agrees to repair or replace components of installation that fail due to defects in materials, or due to a manufacturing defect within the specified warranty period.
           1. Conditions such as deterioration or failure of substrate, excessive substrate moisture, hydrostatic pressure, vandalism, excessive wear, or abuse are not subject to this warranty.
        3. Copy of installation organization's standard warranty in which the installation organization agrees to repair or replace components of installation that fail due to defects in quality of workmanship or professionalism.
           1. Conditions such as lack of climate control after installation, improper maintenance or cleaning, abuse, movement or warping of the substrate, excessive substrate moisture, vandalism, alterations, and subfloor hydrostatic pressure are not subject to this warranty.
  2. QUALITY ASSURANCE
     1. Coordinate scheduling of all cleaning to allow adequate slab drying prior to any testing or installation.
     2. Coordinate scheduling of all testing to allow adequate slab hydration and acclimatization prior to any testing or installation.
     3. Moisture and alkalinity testing shall be performed by an independent testing agency employed and paid by Contractor.
        1. At Contractor's option, tests may be performed by the Contractor.
     4. Testing Agency Qualifications: Testing agency experienced in the types of testing specified.
     5. Remedial Moisture Vapor Emission Control Installer Qualifications: Company specializing in performing work of the type specified in this section, trained by or employed by coating manufacturer.
  3. DELIVERY, STORAGE, AND HANDLING
     1. Deliver, store, handle, and protect products in accordance with manufacturer's instructions and recommendations.
     2. Deliver materials in manufacturer's packaging; include installation instructions.
     3. Keep materials from freezing.
  4. PROJECT CONDITIONS
     1. Maintain ambient temperature in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 65 degrees F (18 degrees C) or more than 85 degrees F (29 degrees C).
     2. Maintain concrete substrate surface temperature in spaces where concrete testing is being performed, and for at least 48 hours prior to testing and through the duration of testing, at not less than 65 degrees F (18 degrees C) or more than 85 degrees F (29 degrees C).
     3. Maintain ambient relative humidity in spaces where concrete testing is being performed, and for at least 48 hours prior to testing and through the duration of testing, at not less than 40 percent and not more than 60 percent.
  5. WARRANTY
     1. Manufacturer's Warranty: Provide manufacturer's standard limited warranty.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer:
         1. Taylor, which is located at: 800 College Drive, Dalton, GA 30720; Toll Free: 800-868-4583; Web: www.tayloradhesives.com.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
  1. MATERIALS

\*\* NOTE TO SPECIFIER \*\* Delete materials not required.

* + 1. Smoothing Compound, Leveling Compound, Patching Compound: Supplied by others. Though not supplied by ISE Logik, compounds used must meet the following criteria.
       1. Cementitious moisture-, mildew-, and alkali-resistant.
       2. Latex or polyvinyl acetate additions are permitted; gypsum content is prohibited.
       3. Compressive Strength, ASTM C109 or ASTM C472: 3000 psi (20684 kPa), minimum, after 28 days.
       4. Compound suitable for substrate conditions, and compatible with adhesive and floor covering.
    2. Alternate Flooring Adhesive: Low-VOC adhesive suitable for the moisture and pH conditions present and compatible with floor covering.
       1. Basis of Design: Resolute; as manufactured by Taylor.
       2. Thickness: As required for application and in accordance with manufacturer's installation instructions.
       3. Provide resistance to up to 100 percent relative humidity per ASTM F2170 and 25 pounds moisture vapor transmission per ASTM F1869.
       4. Provide resistant to alkalinity level of pH 14.
    3. Moisture Vapor Emission Control: Single- or multi-layer coating intended by its manufacturer to resist water vapor transmission to degree sufficient to meet flooring manufacturer's emission limits, resistant to the level of alkalinity found, and suitable for adhesion of flooring without further treatment.
       1. Basis of Design: Sahara Unlimited Moisture Barrier with Enhance Surface Bond Promoter; as manufactured by Taylor.
       2. Thickness: As required for application and in accordance with manufacturer's installation instructions.
       3. Provide resistance to up to 100 percent relative humidity per ASTM F2170 and 25 pounds moisture vapor transmission per ASTM F1869.
       4. Provide resistant to alkalinity level of pH 14.

1. EXECUTION
   1. PREPARATION
      1. Clean substrate surface in accordance with ASTM F710.
         1. Substrate surface shall be free of dust, solvents, paint, wax, oil, grease, asphalt, residual adhesive, adhesive removers, film-forming curing compounds, parting compounds, sealing compounds, alkaline salts, excessive laitance, mold, mildew, and other materials that might prevent adhesive bond.
      2. Do not use solvents or other chemicals for cleaning.

\*\* NOTE TO SPECIFIER \*\* Delete testing options not required.

* 1. MOISTURE VAPOR EMISSION TESTING

\*\* NOTE TO SPECIFIER \*\* Not required for concrete floor slabs containing moisture vapor reduction admixture.

* + 1. For concrete floor slabs without moisture vapor reduction admixture, test in accordance with ASTM F1869 and as follows.
       1. Test where adhesive applied floor finishes are to be installed, and where indicated.
       2. Concrete substrate temperature shall be no less than 65 degrees F (18 degrees C) and no greater than 85 degrees F (29 degrees C) during the conduct of the tests.
       3. Only test when concrete substrate surface is at least 5 degrees F (2.8 degrees C) above dew point.
    2. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated.
    3. Report the information required by the test method.
  1. INTERNAL RELATIVE HUMIDITY TESTING
     1. Concrete slabs containing moisture vapor reduction admixtures shall not require moisture testing.

\*\* NOTE TO SPECIFIER \*\* Not required for concrete floor slabs containing moisture vapor reduction admixture.

* + 1. For concrete floor slabs without moisture vapor reduction admixture, test in accordance with ASTM F2170 and as follows.
       1. Test where adhesive applied floor finishes are to be installed, and where indicated.
       2. Concrete substrate temperature shall be no less than 65 degrees F (18 degrees C) and no greater than 85 degrees F (29 degrees C) during the conduct of the tests.
       3. Only test when concrete substrate surface is at least 5 degrees F (2.8 degrees C) above dew point.
    2. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated.
    3. Report the information required by the test method.
  1. ALKALINITY TESTING
     1. Test in accordance with adhesive and flooring manufacturer's written instructions.
     2. In the event that test values exceed adhesive and floor covering manufacturer's limits, perform remediation as indicated.
     3. Report the information required by the test method.
  2. SUBSTRATE SURFACE ABSORPTION (POROSITY) TESTING
     1. Test in accordance with ASTM F3191.
     2. Follow the appropriate installation instructions for the substrate surface porosity conditions. If the selected material is not compatible with the substrate surface profile, select a different material compatible with substrate surface porosity conditions and flooring material.
     3. Report the information required by the test method.
  3. ADHESIVE BOND AND COMPATIBILITY TEST
     1. Comply with requirements and recommendations of floor covering manufacturer.
     2. In the absence of adhesive and flooring manufacturer's written instructions, test in accordance with ASTM F3311.
     3. Report the results of the adhesive bond and compatibility tests and note any concerns over adhesion.
  4. CONCRETE PREPARATION
     1. Prepare concrete substrate surfaces in accordance with ASTM F710.
        1. See individual floor covering sections for additional requirements.
     2. Comply with requirements and recommendations of adhesive, floor covering, smoothing, leveling, patching, thin set, and mortar manufacturers.
        1. Concrete slabs containing moisture vapor reduction admixtures do not require moisture testing.
     3. Verify appropriate concrete surface profile is present for material to be installed.
     4. Unless otherwise indicated by product manufacturer, do not install any material unless the following conditions are present:
        1. Substrate surface is clean.
        2. Substrate surface is dry.
        3. Substrate temperature is not less than 65 degrees F (18 degrees C) and no greater than 85 degrees F (29 degrees C) during and after installation.
        4. Substrate surface is at least 5 degrees F (2.8 degrees C) above dew point.
        5. Issues with moisture and alkalinity have been addressed.
     5. Fill and smooth surface cracks, grooves, depressions, control joints and other non-moving joints, and other irregularities with smoothing, leveling, or patching compound.
     6. Do not fill expansion joints, isolation joints, or other moving joints.
        1. Unless otherwise indicated, honor all moving joints up through flooring material.
  5. REMEDIATION
     1. Active Water Leaks or Continuing Moisture Migration to Surface of Slab:
        1. Correct this condition before doing any other remediation.
        2. Re-test after correction.
     2. Excessive Moisture Emission or Relative Humidity:
        1. If an adhesive that is warranted to 100% relative humidity per ASTM F2170 is available and is compatible with flooring material, use that adhesive for installation of the flooring.
        2. If not, apply moisture vapor emission control over entire suspect floor area.
        3. Slabs containing moisture vapor reduction admixture require no further moisture vapor emission control remediation.
     3. Excessive Alkalinity, pH:
        1. If remedial floor coating is necessary to address excessive moisture, no additional remediation is required.
        2. If not, if an adhesive that is resistant to the level present is available and is compatible with flooring material, use that adhesive for installation of the flooring.
        3. Otherwise, apply a skim coat of specified patching compound over entire suspect floor area.
  6. CLEANING AND PROTECTION
     1. Cover prepared floors with building paper or other durable covering.

END OF SECTION