



DETAILED APPLICATION INSTRUCTIONS SPECTRUM WATER-BASED STAIN

INITIAL PREPARATION

PROFESSIONAL USE ONLY - Applicators should be licensed contractors/installers, experienced and trained in proper concrete surface preparation, and the proper use and application of these types of products. The following instructions are provided as a guide only, and standard concrete industry best practices should be followed.

Surrounding Area

Mask off, cover and protect **ALL** areas that are not to be stained; including, but not limited to: doors, door frames, walls, windows, etc.

PRECAUTIONS/LIMITATIONS

- Prior to using SPECTRUM WATER-BASED STAIN and/or associated products, please carefully read and follow the technical data sheet, MSDS, and Detailed Application Instructions.
- **Prior to a full-scale application, ALWAYS test a small section of each surface to be treated, using the same applicator, equipment, temperatures/conditions, surface preparation, application techniques, etc.**
- Not recommended for dense surfaces, such as glazed tile, marble, granite, dense brick, dense slate, terrazzo, etc.
- The substrate must be sound and free of all surface irregularities and all foreign material(s) that would inhibit the proper adhesion/bond of SPECTRUM WATER-BASED STAIN. This includes, but is not limited to: laitance, loose concrete, dust, dirt, grease, glues/mastics, paints/coatings, concrete curing compounds, adhesives, form release, and penetrating products, such as silanes, siloxanes, etc.
- Inconsistencies in jobsite conditions, application techniques, porosity of the substrate, temperatures, weather conditions etc., may produce variations in the appearance and/or adhesion of the final film.
- For optimum appearance and performance, it is recommended that new concrete or other porous surfaces be a minimum of 28 days old prior to the application of SPECTRUM WATER-BASED STAIN and the W. R. MEADOWS sealer.
- Application by airless sprayer is recommended.
- Applications using a roller, brush, sponge etc., may leave lap/mechanical marks and/or lines.
- Prior to application over a previously sealed surface, please refer to the Previously Sealed Surface section included in this Guide. A test-section application is always recommended.

PRECAUTIONS/LIMITATIONS (cont'd)

- Not recommended for, including but not limited to: metal, resin, fiberglass, vinyl, rubber, glazed tile, non-porous substrates, etc.
- Do not use acid etching as a cleaning/surface preparation method.
- Do not apply when excessive moisture, heavy condensation, high dew point, high relative humidity, etc. are present.
- Do not use where hydrostatic pressure is present, or may develop.
- SPECTRUM WATER-BASED STAIN will not hide surface blemishes, construction errors, texture inconsistencies, etc. in concrete, cementitious patching compounds, or other porous substrates.
- SPECTRUM WATER-BASED STAIN (Natural) that has been diluted with water at a 1:1 ratio may hide colour inconsistencies/variations in concrete, cementitious patching compounds, or other porous substrates.
- Thoroughly protect all adjacent areas that are not to receive SPECTRUM WATER-BASED STAIN.
- **Do not seal or topcoat with methylmethacrylate sealers or penetrating products, such as silicates, silanes, siloxanes, etc.**
- **KEEP FROM FREEZING.**

SURFACE PREPARATION

Proper surface preparation is the most important step in any staining process, and is critical to the final appearance and performance of SPECTRUM WATER-BASED STAIN. Taking the time to perform proper surface preparation will greatly improve the final appearance and performance of the concrete and will decrease the potential for failure.

A surface that has been properly prepared will offer the greatest potential for producing an aesthetically pleasing work of art.

For optimum appearance and performance, it is recommended that new concrete or other porous surfaces be a minimum of 28 days old prior to the application of SPECTRUM WATER-BASED STAIN and either DECRA-SEAL™ or DECRA-SEAL W/B from W. R. MEADOWS.

The applicator should carefully examine the surface that will be treated to confirm the integrity of the concrete, and to confirm the suitability of the substrate to receive SPECTRUM WATER-BASED STAIN. **After thorough examination of the concrete, the proper method of surface preparation shall be determined by a trained applicator/contractor.**

W. R. MEADOWS OF CANADA
70 Hannant Court, Milton, ON L9T 5C1
Phone: (905) 878-4122 • Fax: (905) 878-4125
Montreal Sales: (877) 405-5186

Hampshire, IL / Cartersville, GA / York, PA / Fort Worth, TX
Benicia, CA / Pomona, CA / Goodyear, AZ / Milton, ON /
St. Albert, AB
www.wrmeadows.com

The substrate must be sound and free of all surface irregularities and all foreign materials that would inhibit the proper adhesion/bond of SPECTRUM WATER-BASED STAIN. This includes, but is not limited to: laitance, loose concrete, dust, dirt, grease, glues/mastics, paints/coatings, concrete curing compounds, adhesives, form release, and penetrating products, such as silanes, siloxanes, etc. For surfaces that have been previously coated with a clear sealer, refer to the PREVIOUSLY SEALED SURFACES section included in this Guide. A test section application is always recommended.

CAUTION - Do not use acid etching as a cleaning or surface preparation method. Residual, un-neutralized acid left in the pores of the concrete may inhibit proper adhesion of SPECTRUM WATER-BASED STAIN.

SURFACE PREPARATION OPTIONS – INTERIOR APPLICATIONS:

Option 1: MECHANICAL SURFACE PREPARATION (Diamond Grinder)

- 1) Recommended for experienced operators only.
- 2) Refer to ICRI Guideline #03732: Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays for additional surface preparation guidelines. **Caution – Do not use acid etching for any cleaning or surface preparation.** A concrete surface profile (CSP) equivalent to ICRI CSP 2 is recommended. Steps 3 and 4 outline two possible grinding options that may achieve the surface profile necessary for proper appearance, adhesion, and performance of SPECTRUM WATER-BASED STAIN.
- 3) For adhesives, thick coatings, and moderate to severe surface profile peaks, irregularities, etc., grind substrate using 40 grit (or equivalent) metal-bonded diamonds. Once complete, follow with 150 grit (or equivalent) metal-bonded diamonds until surface profile is suitable to receive SPECTRUM WATER-BASED STAIN.
- 4) For thinner coatings and minor surface profile peaks, irregularities, etc., grind substrate using 150 grit (or equivalent) metal-bonded diamonds until surface profile is suitable to receive SPECTRUM WATER-BASED STAIN. Thinner coatings may require 40 grit (or equivalent) metal-bonded diamond grinding prior to the 150 grit (or equivalent) blades. Follow grinder manufacturer recommendations.
- 5) Once diamond grinding is complete, remove all remaining dust/residue with a vacuum, followed by a dry and/or wet mop as needed until the concrete is completely free of all foreign materials, dust, etc.
- 6) If additional removal/preparation is necessary, repeat steps 2 - 5 as necessary, or proceed to the SPECTRUM ECO-PREP SURFACE PREPARATION option below.
- 7) Once the concrete is thoroughly clean and has achieved the recommended profile, let surface dry sufficiently, with no standing water, and proceed to the Tape Test described in Steps 8-13.
- 8) Apply several 30.8 cm (1') strips of high quality 5.08 cm (2") packaging tape to multiple locations/sections throughout the slab.
- 9) Aggressively press the tape onto the floor with the heel of your hand.

- 10) Fold one end of the tape into itself and pull it off of the floor as vigorously as possible.
- 11) Examine the underside of the tape in a well lit area to determine if there is any dust, residue, or other foreign material/particles present. The tape should contain very little – if any – dust or foreign material/particles.
- 12) For sections of the slab in which the tape does contain visible dust, foreign material/particles, etc., proceed to the SPECTRUM ECO-PREP SURFACE PREPARATION section below.
- 13) If tape does not contain any dust or foreign material/particles, proceed to the DILUTION and APPLICATION sections.

Option 2: SPECTRUM ECO-PREP SURFACE PREPARATION

- 1) To be used where a diamond grinder is not available or not practical.
- 2) Thoroughly protect all adjacent areas that are not to receive SPECTRUM ECO-PREP.
- 3) Using an appropriate, commercially available chemical and/or mechanical concrete/masonry stripper, thoroughly remove any paint, coating, concrete curing compound, adhesive, form release, etc. from the concrete PRIOR to applying SPECTRUM ECO-PREP. Follow all manufacturers' instructions regarding use, health and safety information, etc.
- 4) Using a 3.2 cm (½") nap roller, liberally apply SPECTRUM ECO-PREP to a 6.09 x 6.09 metre (20' x 20') section of the slab. A 30 mil wet film thickness is recommended.
- 5) Allow SPECTRUM ECO-PREP gel to remain on the slab for a minimum of 20 minutes. Additional "soak" time may be necessary for substrates that are extremely dense surfaces, burnished concrete, etc.
- 6) If a power washer is available, remove SPECTRUM ECO-PREP from the surface using an overlapping pattern for complete removal. [A 0° rotating nozzle with a 12,000 work units (work units = gallons per minute x psi or litres per minute x mPa) system is recommended.]
- 7) If a power washer is not available, agitate SPECTRUM ECO-PREP on the surface using an industrial floor buffer (or an auto-scrubber for larger areas) equipped with brush attachments. Continue agitation/scrubbing action while rinsing the surface with clean, potable water.
- 8) Remove all residual rinse water and residue from the surface using a wet/dry vacuum, or, if using an auto-scrubber, lower the squeegee uptake bar.
- 9) Continue to agitate, flush, rinse, and remove residual water and residue from the surface until the rinse water is clear and no gel residue remains on the concrete.
- 10) If additional profiling is desired, repeat steps 2 – 9 as needed.
- 11) Once the concrete is thoroughly clean and has achieved the recommended profile, let surface dry sufficiently with no standing water and proceed to the Tape Test described in Steps 12-17.
- 12) Apply several 30.8 cm (1') strips of high quality 5.08 cm (2") packaging tape to multiple locations/sections throughout the slab.
- 13) Aggressively press the tape onto the floor with the heel of your hand.
- 14) Fold one end of the tape into itself and pull it off the floor as vigorously as possible.

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WARRANTY: W. R. Meadows of Canada warrants that, at the time and place we make shipment, our materials will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM OF TRADE OR OTHERWISE. As the exclusive remedy for breach of this Warranty, we will replace defective materials, provided, however, that the buyer examine the materials when received and promptly notify us in writing of any defect before the materials are used or incorporated into a structure. Three (3) months after W. R. Meadows of Canada has shipped the materials, all our Warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates and no action for breach of any such duties may thereafter be commenced. W. R. Meadows of Canada shall in no event be liable for consequential damages. Unless otherwise agreed to in writing, no warranty is made with respect to materials not manufactured by W. R. Meadows of Canada. We cannot warrant or in any way guarantee any particular method of use or application or the performance of materials under any particular condition. Neither this Warranty nor our liability may be extended or amended by our salesmen, distributors or representatives, or by our distributor's representatives, or by any sales information or drawings.

- 15) Examine the underside of the tape in a well lit area to determine if there is any dust, residue, or other foreign material/particles present. The tape should contain very little – if any – dust or foreign material/particles.
- 16) For sections of the slab in which the tape does contain visible dust, foreign material/particles, etc., repeat steps 2-16 as needed.
- 17) If tape does not contain any dust or foreign material/particles, proceed to the DILUTION and APPLICATION sections.

SURFACE PREPARATION – EXTERIOR, BROOM FINISHED APPLICATIONS:

SPECTRUM ECO-PREP SURFACE PREPARATION

- 1) Using a straight edge, shovel, or other tool, scrape/remove any peaks or high profiles present on the surface. This method of scraping/removing is typically sufficient to remove any peaks, high profiles, etc. (If left on the surface, these peaks/high profiles may erode faster than the remainder of the slab, producing unstable areas of the slab which may adversely affect the appearance/performance of SPECTRUM WATER-BASED STAIN.
- 2) Thoroughly protect all adjacent areas that are not to receive SPECTRUM ECO-PREP.
- 3) Using an appropriate, commercially available chemical and/or mechanical concrete/masonry stripper, thoroughly remove any paint, coating, concrete curing compound, adhesive, etc. from the concrete PRIOR to applying SPECTRUM ECO-PREP. Follow all manufacturers' instructions regarding use, health and safety information, etc.
- 4) Using a 3.22 cm (½") nap roller, liberally apply SPECTRUM ECO-PREP to a 6.09 x 6.09 metre (20' x 20') section of the slab. A 30 mil wet film thickness is recommended.
- 5) Allow the SPECTRUM ECO-PREP gel to remain on the slab for a minimum of 20 minutes. Additional "soak" time may be necessary for some substrates.
- 6) If a power washer is available, remove SPECTRUM ECO-PREP from the surface using an overlapping pattern for complete removal. [A 0° rotating nozzle with a 12,000 work units (work units = gallons per minute x psi or litres per minute x mPa) system is recommended.]
- 7) If a power washer is not available, agitate SPECTRUM ECO-PREP on the surface using an industrial floor buffer (or an auto-scrubber for larger areas) equipped with brush attachments. Continue agitation/scrubbing action while rinsing the surface with clean, potable water.
- 8) Remove all residual rinse water and residue from the surface using a wet/dry vacuum, or, if using an auto-scrubber, lower the squeegee uptake bar.
- 9) Continue to agitate, flush, rinse, and remove residual water and residue from the surface until the rinse water is clear and no gel residue remains on the concrete.
- 10) If additional profiling is desired, repeat steps 1-9 as needed.
- 11) Once the concrete is thoroughly clean and has achieved the desired profile (as described earlier in this guide), let the surface dry overnight.
- 12) Once the concrete is thoroughly clean and has achieved the recommended profile, let surface dry sufficiently, with no standing water, and proceed to the Tape Test described in Steps 13-17.
- 13) Aggressively press the tape onto the floor with the heel of your hand.

- 14) Fold one end of the tape into itself and pull it off of the floor as vigorously as possible.
- 15) Examine the underside of the tape in a well lit area to determine if there is any dust, residue, or other foreign material/particles present. The tape should contain very little – if any – dust or foreign material/particles.
- 16) For sections of the slab in which the tape does contain visible dust, foreign material/particles, etc., repeat steps 1-16, as needed.
- 17) If tape is does not contain any dust or foreign material/particles, proceed to the DILUTION and APPLICATION sections.

DILUTION

SPECTRUM WATER-BASED STAIN is supplied as a concentrate to be diluted with water [or a blend of SPECTRUM SURFACE ENHANCER and water) to provide the user with multiple colours and/or colour combinations. **Caution - Tap (hard) water is NOT recommended for dilution. Distilled, de-ionized, or reverse - osmosis water is required to achieve optimum performance and appearance.**

The recommended dilution ratios are:

	Primary base colour on concrete	Highlight Colours and/or colours applied to cementitious overlays & micro-toppings**
SPECTRUM W/B STAIN	1 Part	1 Part
SPECTRUM SURFACE ENHANCER	2 Parts	0 Parts
Distilled/ De-ionized Water	2 Parts	4 Parts

Always apply lighter colour first coat.
A dry film thickness of <1 mil (per coat) is recommended.

NOTE: Increasing the dilution rate will result in a lighter colour with more transparency. Decreasing the dilution rate (less water and/or SPECTRUM SURFACE ENHANCER added) will increase the "hiding" power of the stain, resulting in a darker, more opaque look. I.e., more water = more transparency and lighter colour. Less water = less transparency and darker, more solid colour.

COVERAGE *

Approximate coverage is 6.1–9.8 m² per diluted litre. (250 – 400 ft.²/gal.). *Coverage will vary depending on dilution ratio, porosity, profile, application techniques, condition of the concrete/masonry substrate, etc.

APPLICATION

Note: Prior to completing a full-scale application, **ALWAYS** apply SPECTRUM WATER-BASED STAIN to a small test section of the prepared surface and allow the stain to dry completely. Confirm that the proper appearance, bond, and performance is achieved.

Airless Sprayer: Divide the slab into small work sections, using walls, joint lines, etc. as natural stopping points. Complete each individual section before proceeding.

For a natural, variegated appearance, apply SPECTRUM WATER-BASED STAIN by creating a mist spray, using an airless sprayer, high volume low pressure (HVLP) sprayer, production gun, pump sprayer, or trigger spray bottle. Mist SPECTRUM WATER-BASED STAIN EVENLY over the slab, leaving no puddles, drips, spatter, etc. Immediately cleanup all puddles, drips, spatter, etc., by dabbing a sea sponge, etc., to absorb the extra product present on the surface – do not rub or wipe.

Brush/Sea Sponge Application: For application areas where coverage and additional application control is needed (corners, etc.), SPECTRUM WATER-BASED STAIN may be applied using a sea sponge or traditional bristle brush. Apply EVENLY over the slab, avoiding puddles, drips, spatter, etc. Immediately clean up all puddles, drips, spatter, etc., by dabbing a sea sponge, etc., to absorb the extra product present on the surface – do not rub or wipe.

CAUTION: Applications using a roller, brush, sponge, etc., may leave mechanical (lap) lines, even though a wet-edge is maintained.

Dry Time/Adhesion

Dry times can be confirmed by running your hand over the stained surface. If you are unable to rub the stain/colour off, the stain has achieved proper adhesion and is dry enough to proceed with application of subsequent coats/colours and/or completion of the application.

CAUTION: Always allow a full 24 hour drying period before applying DECRA-SEAL or DECRA-SEAL W/B over the stained surface.

SEALING

After the stained surface has been allowed to dry a full 24 hours, apply DECRA-SEAL or DECRA-SEAL W/B, following technical data sheet, MSDS, label instructions, etc.

PREVIOUSLY SEALED SURFACES

Thoroughly clean the previously sealed surface, using an appropriate, commercially available cleaner, specifically designed for the surface/substrate to be cleaned. Thoroughly rinse the surface with clean, potable water and allow the surface to dry thoroughly - a minimum of 24 hours. Proceed to the DILUTION, APPLICATION and SEALING sections, outlined earlier in this guide. **CAUTION: Always allow SPECTRUM WATER-BASED STAIN a full 24-hour drying period before applying DECRA-SEAL or DECRA-SEAL W/B.**

CLEANUP

While SPECTRUM WATER-BASED STAIN is still wet, immediately clean work area, application equipment, tools, etc., with water. Once dried, equipment may be cleaned with an aromatic solvent, such as xylene. Follow all solvent manufacturer use, safety and handling instructions/precautions, etc.

HEALTH AND SAFETY

If contact with the skin or eyes occurs, flush area with water. Consult product Material Safety Data Sheet (MSDS) for complete health and safety information prior to using.

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WARRANTY: W. R. Meadows of Canada warrants that, at the time and place we make shipment, our materials will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM OF TRADE OR OTHERWISE. As the exclusive remedy for breach of this Warranty, we will replace defective materials, provided, however, that the buyer examine the materials when received and promptly notify us in writing of any defect before the materials are used or incorporated into a structure. Three (3) months after W. R. Meadows of Canada has shipped the materials, all our Warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates and no action for breach of any such duties may thereafter be commenced. W. R. Meadows of Canada shall in no event be liable for consequential damages. Unless otherwise agreed to in writing, no warranty is made with respect to materials not manufactured by W. R. Meadows of Canada. We cannot warrant or in any way guarantee any particular method of use or application or the performance of materials under any particular condition. Neither this Warranty nor our liability may be extended or amended by our salesmen, distributors or representatives, or by our distributor's representatives, or by any sales information or drawings.