A GUIDE TO INSTALLING
FORTIFLASH® FOR FLOORS
CLASS I VAPOR RETARDER
AND WATERPROOF MEMBRANE FOR FLOORING

THE DETAILS SHOWN HERE REFER TO GENERALLY ACCEPTED INSTALLATION PRACTICES
OF WOOD PANEL SUBFLOORS ATTACHED OR FLOATED OVER CONCRETE

FortiFlash 40 is a Class I vapor retarder and waterproof membrane for use over concrete under wood panel subfloors. It inhibits moisture migration from concrete to the wood subfloor as well as the finished floor.

WOOD SUBFLOOR OVER CONCRETE

JOB SITE SPECIFICATIONS
Building must be completely enclosed. All other interior work should be completed and interior environmental conditions must be at occupied levels. Basements and crawl spaces, if any, must be dry and properly covered and vented. Use only flooring recommended by manufacturer for the "grade level": above, on-grade or below grade flooring. This membrane does not eliminate moisture-related issues originating from the top or edges of subfloor.
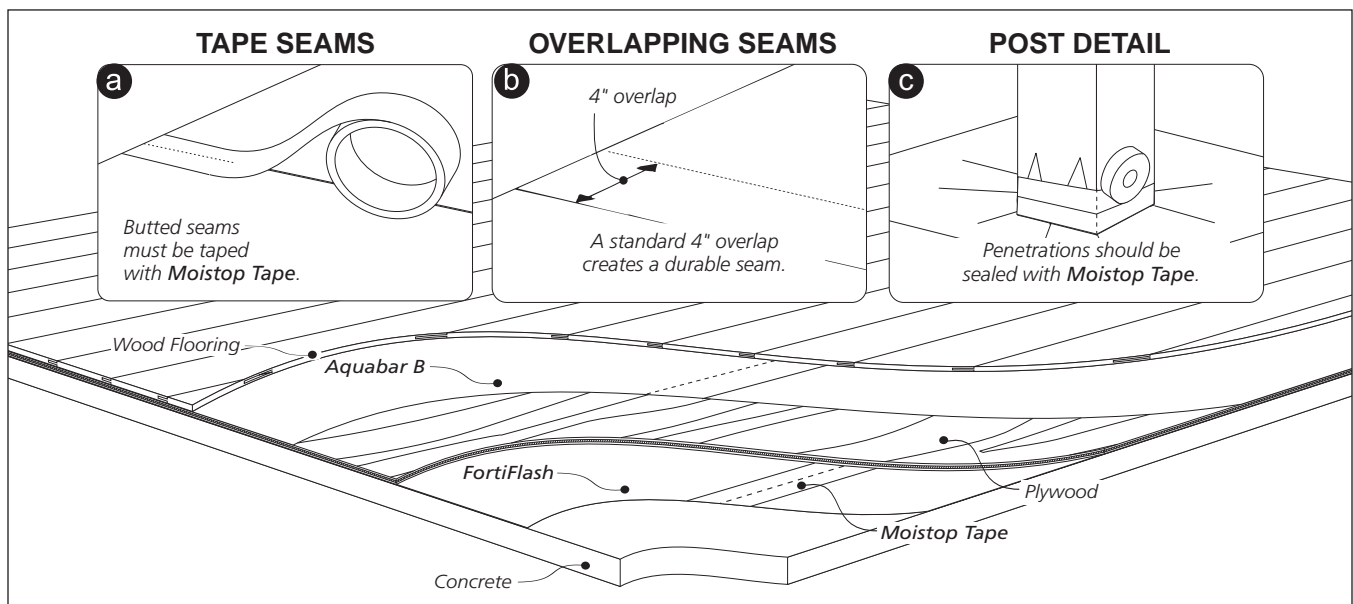
CONCRETE SUBSTRATE SPECIFICATIONS
- Always follow local building codes, NWFA Guidelines and wood floor manufacturer's instructions for proper concrete slab conditions.
- Concrete must have a minimum 3,000 psi; if less use the "floated subfloor" method, not mechanically attached, or consult fastener manufacturer's recommendations.
- Concrete slab must not be subject to hydrostatic pressure.
- Concrete must be cured a minimum 30 days prior to moisture testing.
- A slab is suitable for installation of **FortiFlash 40**, Class I membrane with a moisture reading of at most

one of the following:
  - by the Calcium Chloride test, ASTM F-1869 reading of $\leq$ 10 lbs
  - by the Relative Humidity test, ASTM F-2170 of $\leq$ 85%
  - by the Calcium Carbide test, ASTM D-4944 (modified) $\leq$ 4%
- Concrete surface areas requiring patching or leveling use cement based products.
- Concrete must be dry, flat, structurally sound, level, and free of all surface debris, dirt, oil, sealers, loose or chalky concrete, and other contaminants. Vacuum and damp mop to remove dust.
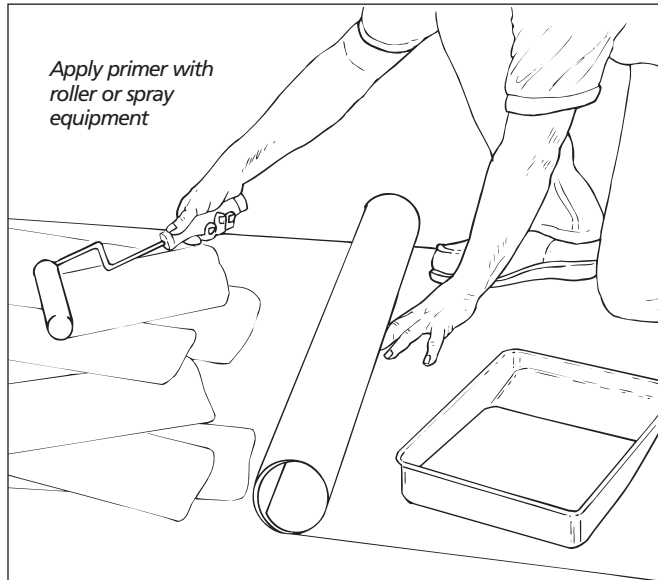
FORTIFLASH 40 INSTALLATION
- For ease of installation, do not remove the release paper on **FortiFlash 40** prior to fitting. Fit to wall plates under drywall and door jambs.
- Fit **FortiFlash 40** in the largest sections possible, allowing for door openings, wall partitions and plumbing. This can be done by measuring or fitting **FortiFlash 40** directly over the surface to be covered, or use standard scribing-paper methods with **FortiFlash 40** to transfer measurements accurately. Once the largest sections have been properly

TAPE SEAMS

(a) *Butted seams must be taped with Moistop Tape.*

OVERLAPPING SEAMS

(b) *4" overlap*
A standard 4" overlap creates a durable seam.

POST DETAIL

(c) *Penetrations should be sealed with Moistop Tape.*

Wood Flooring
Aquabar B
FortiFlash
Plywood
Moistop Tape
Concrete

CONTINUED FROM FRONT...

Apply primer with roller or spray equipment

positioned, use a sharp utility knife to cut out any openings and fit into place.
- **FortiFlash 40** is not compatible with EPDM or flexible (plasticized) Polyvinyl Chloride (PVC) based membranes. **FortiFlash 40** is not compatible with some sealants. Consult sealant manufacturer and test for interaction with any sealant to be used.

INSTALL FORTIFLASH 40 OVER CONCRETE
- After fitting, roll back half of the **FortiFlash 40** membrane to expose the concrete subfloor.
- Test for adhesion. If **FortiFlash 40** does not adhere to concrete the surface must be primed.
- Prime this area of the slab with 3M Super 77® or Henry Aquatac™ primer, no substitutions. Follow primer manufacturer's application instructions. Apply **FortiFlash 40** after primer becomes tacky. Primer activates the bond between **FortiFlash 40** and the concrete to achieve the best possible bond.
- Peel away the release paper and press membrane firmly over substrate.
- Repeat above steps with other half and install the next roll of **FortiFlash 40**.

Seams between rolls must be overlapped, or butted and taped.
- Overlap Seams. Overlap sections of **FortiFlash 40** a minimum of 4 inches.
- Butt Seams. Butt and seal with Fortifiber's **Moistop® Tape**; no substitutions.

After covering the entire area, apply sufficient pressure to adhere, then use a 100 lb. roller over the entire membrane to ensure full contact between **Moistop Tape**, **FortiFlash 40** and concrete.

TROUBLESHOOTING
To remove air pockets, use a sharp knife to slit the pocket and compress with a trowel or J-roller and seal with **FortiFlash 40** or **Moistop Tape**. If **FortiFlash 40** folds and seals to itself, cut out damaged area and install a repair piece using tape and seam technique.

INSTALLING A WOOD SUBFLOOR OVER CONCRETE
- In on-grade and below-grade applications, always add vapor retarder before applying subfloor.
- **Always follow the wood floor manufacturer's recommendation or NWFA Guidelines for a proper subfloor.**
- **Always follow fastener manufacturer's recommendations for proper fastener selection and fastener pattern for wood panels or screeds to concrete.**

MECHANICALLY FASTENED SUBFLOOR SYSTEM OVER CONCRETE
- Use wood subfloor materials recommended by wood floor manufacturer or follow NWFA Guidelines
- Fastening wood panel subfloor to concrete. Check with fastener manufacturer for selection of proper fastener. Fasteners may be powder-driven pins, pneumatic driven nails, screws, deformed pins, or other fasteners suitable for concrete application.
- Be sure to avoid penetrating the **FortiFlash 40** with flooring cleats or staples when installing flooring. Never adhere flooring directly to **FortiFlash 40** membrane.
- Apply Fortifiber's **Aquabar**®, Class II vapor retarder over wood subfloor, as a secondary vapor retarder; no substitutions.
- Install flooring over **Aquabar** following wood floor manufacturer's instructions.

SCREED SYSTEMS OVER CONCRETE
Screeds may be mechanically attached through **FortiFlash 40** to concrete. Follow wood floor manufacturer's or NWFA Guidelines for proper installation of screed systems over concrete and for proper selection and installation of wood flooring over screeds or screed with wood subfloor panels.

FLOATING FLOOR SYSTEMS
Any floating floor system may be installed over **FortiFlash 40**. Follow wood floor manufacturer's or NWFA Guidelines for proper installation of floating floor systems. Do not puncture **FortiFlash 40** with cleats or staples used to install flooring over nail down floating subfloor systems.

Call 1-800-773-4777 Nationwide for Technical Assistance or visit our website at *www.fortifiber.com*

Fortifiber Building Systems Group®

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