

# Pages Faxed:	Date:
To:	Fx#:
From:	Ph#:
Message:	

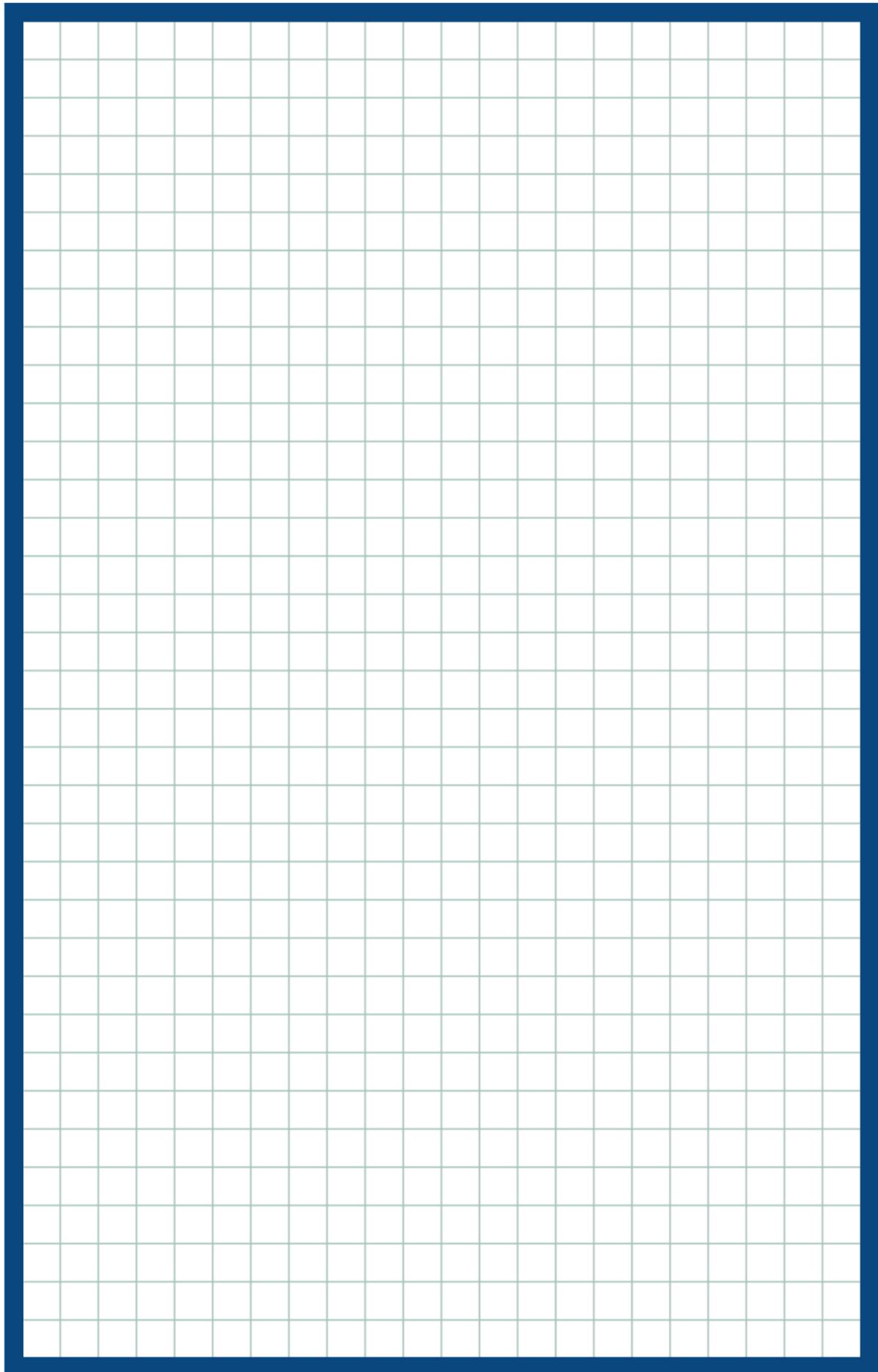
888-4WEARCON (888-493-2726)
816-587-1923 • Fx 816-587-2055

info@wearcon.com
www.wearcon.com

2845 E. Heartland Drive, Liberty, MO 64068



"Your Blue Line of Defense"



Dean's Tips & Tricks A Supplement to the ITW Densit® WearFlex™ Installation Manual

Hi, I'm Dean Green, **Wear-Concepts Project Maintenance Manager** and **Field Crew Supervisor**. I've been inside of hundreds of plants and repaired thousands of wear problems in facilities just like yours. Along the way I have developed some great methods for installing a variety of different wear solutions. I'd like to share some of my tips & tricks with you.

ITW Densit® WearFlex™ wear compound truly has the potential of not only saving your equipment but also making it better than new. In the right applications, I have seen it literally perform miracles. **Wear-Con's Field Crew** and I have installed tons and tons of **WearFlex™**. We also have **Project Managers** (such as myself) that can come to your facility to train and supervise your crew. The instruction manual is very thorough and needs to be read cover to cover before you attempt installing it yourself. This supplement is not intended to replace the installation manual or guide at all. It is just an overview that tries to fill in some of the gaps which experience has taught me. That being said, here are some things to keep in mind:



ITW Densit®

figure 1

EVALUATION*

- How big is the area to be lined?
- How thick do you want the lining to be?
- Do you have the right people?
- Do you have the right tools?



figure 2

DETERMINE WHAT YOU NEED*

- **WearFlex™** comes in 55lb bags, (see figure 1). **WearFlex™** can be applied in a variety of thicknesses. We do not recommend installing it any less than 3/4" thick. We usually don't put it on any thicker than 1 1/2" thick, but it can be put on much thicker. The average installation thickness for us is 3/4" thick. Therefore, as an example: if you were to install the compound at 3/4" thick, you would be able to lay 4.7 square feet with one bag. **WearFlex™** must be mixed three bags at a time with no exceptions! So, one batch of three bags of **WearFlex 3/4"** thick has a yield area of about 14.1 square feet, (3.75' x 3.75').

- Wire mesh. Specifically extruded metal mesh. **WearFlex™** does not stand on its own. Just as concrete needs reinforcement bar, so Densit® needs an anchoring mesh.

- I'm not going to kid you. Installing **WearFlex™** is hard work! You've got to be strong and healthy to do this job, especially the overhead. It's a killer on the shoulders. Make sure you've got a good crew lined out to do this that can rotate tasks.

- All of the tools that you will need to do the job are simple and locally available except for one, the mixer (see figure 2). A paddle pan mixer with reinforced gears and motor must be used, (see figure 3). Nothing else will do because nothing else can mix the **Densit® WearFlex™** as efficiently in the proper time frame. You are in luck. **Wear-Con** rents and sells this mixer. Simple to operate, it's a workhorse.

BE SAFE!*

- Read the directions!
- Wear the proper safety equipment! High quality nitrile gloves will last a few days and provide a good feel.
- Don't get in a hurry!



figure 3

- Rotate tasks to prevent repetitive motion injuries!
- Use your head!
- Ask for help!

PREPARATION*

• **Densit® WearFlex™** must always be protected from moisture of any kind, (including frost) during storage, (see figure 4). That includes moisture from below, so stack them on two pallets to get them high enough off the ground.



figure 4

• The part to be lined. Clean, clean, and clean some more. In whatever manner you use to clean the piece that is getting lined, just make sure there is no residue of any kind.

• There is a trick as to what direction the mesh should be welded so that the **WearFlex™** installs easier. If you look at extruded metal mesh closely, it appears layered. The compound needs to be forced completely behind the mesh. Therefore, when troweling, you don't want to work against the mesh but with it. So, install it scoops down, (see figure 5). This catches the **WearFlex™** and makes it easier to pack it behind. Remember that the mesh must be secure but slightly 'away' from the surface. After welding, many times we will pry it out a bit.



figure 5

it looks dry. If you do, you might end up with **Densit®** soup! Don't panic. Wait for three full minutes. After that, it should moisten up. If it is still dry after eight minutes, add .70 grams of water per bag. Wait a minute. Then check for workability, (see figure 5).

• Let's get that mixer as close to the piece being worked on as possible.

• Before you begin mixing check the polarity of the electric feed coming in by turning on the mixer. If the paddles are turning the wrong direction, turn the mixer off and unplug it. There is a polarity switch under the mixer that can be switched with a straight slot screwdriver. Plug it back in and you are good to go!

• The mixing of the **Densit® WearFlex™** is key. One person should run the mixer at all times to ensure a uniform consistency of each batch of compound. The mixer guy will develop a 'feel' for the material. This depends on many factors such as temperature of the air, material and water. This one person has to regulate the condition of the compound being mixed so that it goes on right and cures properly. The amount and temperature of the water makes for the perfect receipt regardless surroundings.

When you first start, there will be a temptation to add more water because it looks dry. If you do, you might end up with **Densit®** soup! Don't panic. Wait for three full minutes. After that, it should moisten up. If it is still dry after eight minutes, add .70 grams of water per bag. Wait a minute. Then check for workability, (see figure 5).

• If it's cold enough, a heater may be required in the work area, the storage area, and the mixing area.

• One of the tools that I use is a home-made measuring stick. Just a piece of wood the size of a pencil that I have marked at the proper thickness that I want the **WearFlex™** to end up at. Keep it handy and use it often to insure consistency.

• Curing compound can only be sprayed on. A Hudson-style bug sprayer will work but is cumbersome. That's why I keep several pint spray bottles handy. Easy to use and easy to refill.

APPLICATION*

• Once the **WearFlex™** is mixed, the manual says that you have between 20 to 60 minutes where the compound is workable depending on your climate. Normally, it's closer to 30 to 45 minutes.

• If the **WearFlex™** compound has been mixed properly, you should be able to form it into a "wet ball" that has good workability and can be applied without difficulty.



figure 6

• For floors, an entire batch (three bags) can be dumped and worked in all at one time. Walls, as much as you can handle. Ceilings, they are done by portioning out baseball to softball sized amounts and working them in. The closer you stand to the ceiling the easier it will be to press it in, (see figure 7). Ceilings are really a two-man operation if the space is not too cramped, consisting of one man pressing and one man troweling. This technique gives each man a slight rest while the other is working.



figure 7

• You may have more than one location being worked on at the same time. For instance, one area being a ceiling and another being a wall. FYI, the ratio of material needed within the same time frame it takes to install **WearFlex™** on a wall in comparison to a ceiling is approximately 3 to 1.

• Consistent thickness. This is where that measuring stick comes in to play. Frequently insert it directly into the wet compound that has been troweled making sure it passes the mesh and comes into direct contact with the fabrication. Check for thickness. Add or remove. Trowel smooth. A uniformly thick **Densit®** lining will wear evenly.

• Air pockets need to be looked for regularly. Simply scrape back a bit of wet compound with your trowel to check for those voids, (see figure 8). Press in more **WearFlex™** where needed and trowel smooth. If you keep seeing air pockets, then the compound needs to be pressed in harder when applying.

• Seams. You have to stop sometime. **Densit® WearFlex™** does not adhere to itself. It needs a smooth straight edge to start where you left off. Sometimes that may require an actual wooden straight edge. But once you gain experience, a straight edge can be achieved with a trowel and some TLC, (see figure 9). The next day, the compound must be pressed in extra hard into the seam to insure no air pockets are left behind.



figure 8

• Curing compound slows down the curing process to prevent excessive drying and cracking. This requires that the curing compound be sprayed on small finished sections as you go.

• Plastic sheets can also be applied to the **WearFlex™** to slow down the curing process.

CLEAN UP*

• **WearFlex™** cleans up with water while still wet.

• Keeping that mixer clean is imperative. Remember that if you treat her right, she'll return the favor by mixing well. The same holds true for all your tools.

I hope these Tips & Tricks will help you. Again, this is not a guide or manual on how to install **ITW Densit® WearFlex™**. It is just a supplement and an overview that tries to fill in some of the gaps which experience has taught me. The instruction manual is very thorough and needs to be read cover to cover before you attempt installing it yourself. It is available upon request. Remember to become informed, gain confidence, become the expert, and then train others. If you need help, ask for it. Call us at 1-888-4WEARCON or email us at info@wearcon.com. I can also come out as a **Project Manager** to train, direct, and supervise your people to do it right. Another option is to have the **Wear-Concepts Field Crew** do the job for you.

Whatever you choose, we're here to help you in your fight against wear!

*See the **Wear-Concepts ITW Densit® WearFlex™ Installation Guide** that is available upon request.



figure 9