



## Chemical Weld Instruction Sheet

**Chemical-Weld:** Only Oscoda Plastics chemical-weld products should be used with PROTECT-ALL flooring. Chemically-welding PROTECT-ALL seams should only be performed with a **loose-lay** application. Chemical-welding is not possible when PROTECT-ALL products are glued down. Consult Oscoda Plastics for details.

### Concrete Floor Preparation/Testing

1. ALL on-grade and below-grade concrete floors should have an existing vapor barrier (10mil/0.010in.) installed below the slab. Consult the following standards; ASTM E1745-97, ASTM E96-00, ASTM E1643, and ACI 302.1R at [www.astm.org](http://www.astm.org) and [www.aci-int.net](http://www.aci-int.net). The concrete sub-floor should be dry, smooth, and structurally-sound. It must be flat ( $F_F20$ ) and level ( $F_L15$ ), except for sloping to drains. It should be free of depression, scale, and foreign deposits of any kind. Prior to the installation, the floor should be swept and shop vacuumed to ensure all dust is removed.
2. The following tests should be performed prior to any PROTECT-ALL installation over concrete and conducted three times in three different testing areas within the first 1,000 square feet and one test every 1,000 square feet thereafter. Reference ASTM F710 Standard Practice for Preparing Concrete Flooring to Receive Resilient Flooring.
  - a. **Calcium Chloride Test** – Required results: **moisture vapor emission rate of 3lbs/1,000ft<sup>2</sup> per 24 hours**. Consult ASTM F1869.
  - b. **Relative Humidity Test** – Required results: **75% - 80% relative humidity**. Consult ASTM F2170.
  - c. **PH Test** – Required results: **8 to 10**.
  - d. **PSI Test** – For a concrete slab. Required results: **3500 psi minimum**.

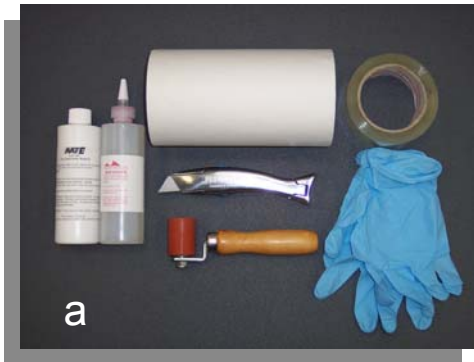
*Note: If high Moisture Vapor Emission Rates (MVER), relative humidity levels, or alkalinity levels exist, then a surface-applied vapor reduction system may be needed. There are several types on the market and which one to use is at the sole discretion of the installer, end-user, and vapor sealer manufacturer. The moisture/vapor barrier's performance and warranty are the responsibility of their manufacturer, end-user, and installer, not Oscoda Plastics.*

**Tools needed to perform chemical-weld:** Seam Sealer II (comes w/applicator tip) yield: 250 lf, Seam Sealer Remover, 2" (approx.) wide" hand-roller, utility knife, 2" clear tape, wax paper rolls, clean white rags, paper towels, disposable gloves, and mineral spirits (Fig. a).

- The PROTECT-ALL materials must be acclimated at least 3 days prior to beginning the installation. The interior environment must be temperature controlled and remain at 72° F (+/- 5°) before, during, and permanently after the installation.
- Always practice chemical-welding on scrap pieces first to ensure the proper technique is being followed and that the adhesive on the tape does not adversely react to the seam sealer. **Seam sealer II cannot be used as filler for voids between the seams.** The seam sealer is only effective when the sides of the sheets are touching top to bottom for the full ¼" thickness, there must be no gapping. Whether working with the large sheets or 24" tiles, only chemical-weld one length and one width at a time, therefore only seam seal one tile/sheet at a time. Observe all cautions and warnings on the Seam Sealer label/instructions.
- A 3" (approx) wide nonstick barrier, such as common wax paper, must be placed underneath ALL seams to prevent the seam sealer from bonding PROTECT-ALL to the subfloor.
- Lay the sheets/tiles, providing a 1/4" expansion gap around all fixed objects and walls.
- The chemical-weld method is designed to seam the sheets/tiles together in consecutive order. Once you determine the layout method, set the first sheet/tile in place and chemical-weld the second sheet/tile to the first and so on.
  - a. Place the nonstick barrier equally underneath the seam and fit the seam tight ensuring no gaps and that the material is flush (Fig. 1). Apply clear tape perpendicular across the seam every 12"-24" to hold the seams tight (Fig. 2). The perpendicular tape must be placed with slight tension. If chemical-welding Matte always roll the tape to help "set" the tape. Rolling the tape is not necessary with Gloss. Next, evenly apply clear tape over the entire length of the seam (Fig. 3). Then, carefully split the tape at the seam using a utility knife (Fig. 4). Separate the seam ½" apart and re-roll the tape (Fig. 5). **It is critical that the tape be adhered with no ridges or bubbles in order to prevent seam sealer from leaking onto the top of the material.**

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COMMERCIAL FLOORING

- b. Don the disposable gloves and proceed applying a 1/8" bead of Seam Sealer II along the top of the 1/4" **side wall** using the applicator tip (Fig. 6). Be careful not to disturb the clear tape while doing this. Immediately place the sheet/tile back into position and keep constant pressure on the seam. If the correct amount of seam sealer has been applied there should be a small amount of excess coming out along the top of the **entire seam**. Clean the excess residue immediately with paper towels (Fig. 7) and again apply clear tape perpendicular to the seam to hold the seam tight every 12"-24" (Fig. 8). **Ensure that the tops of the sheets are flush**. Use duct tape to hold any stubborn seam areas tight.
  - c. After 10 minutes, carefully remove all tape from step "b." During this 10 minute window you should be chem-welding the next consecutive sheet/tile. The purpose of the 10 minutes is to allow the seam to bond minimally, but leave enough time to remove any wet seam sealer that has accidentally leak under the tape and on to the top of the material. Wet seam sealer can be removed using a clean white rag with either mineral spirits or seam sealer remover (see asterisk below). Dried seam sealer cannot be removed. Any stubborn seams not remaining tight should have duct tape applied under tension and allowed to set for 24 hours.
- ***Do not allow the Seam Sealer Remover to contact the finished flooring for more than a few seconds. Full Seam Sealer cure is 24 hours and the seams should not have any traffic during this period. \*If any seam sealer or seam sealer remover is allowed to dry on top of the PROTECT-ALL flooring, it will permanently damage the finish. Seam Sealer Remover is only effective removing minor amounts of wet seam sealer and very minor amounts of dried seam sealer. Follow all instructions provided on the side of the bottle.***

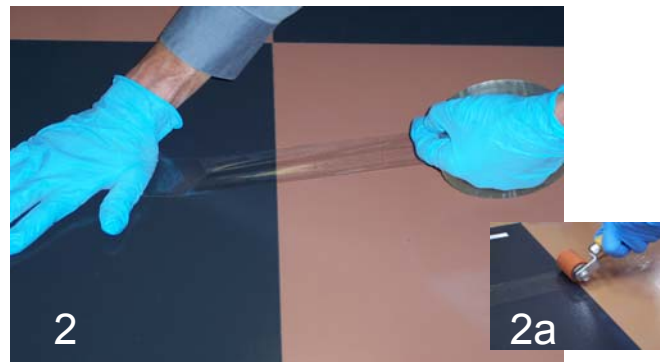


Tools needed to perform chemical-weld:

- **Seam Sealer II** (comes with applicator tip). Covers 250 lineal feet of welding.
- **Seam Sealer Remover or mineral spirits**
- **2" (approx) hand-roller**
- **Utility knife**
- **2" clear tape**
- **Wax paper**
- **Clean white rags, paper towels, and disposable gloves.**



Place a 3" wide nonstick barrier equally at **ALL** seams, such as wax paper, before chemically-welding.



Dry fit material first by applying clear tape perpendicular to the seam every 12"-24" to hold the seams tight. Apply this tape with slight tension. Roll **ALL** tape if using P-A Matte.



Next, evenly apply clear tape over the entire length of the seam. Roll the tape if using P-A Matte.



Carefully split the tape at the seam using a utility knife.



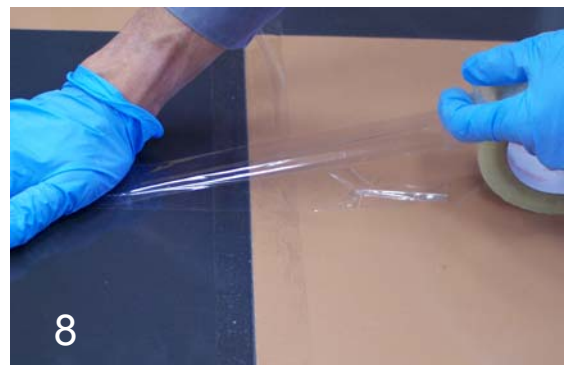
Separate the sheet/tile 1/2" apart from the connecting sheet/tile and re-roll the tape at the seam.



Apply a 1/8" bead of Seam Sealer II along the top of the 1/4" side wall using the applicator tip. Making certain not to disturb the clear tape.



Place the sheet/tile back into position and keep constant pressure on the seam. Clean excess residue immediately off the top of the seam using paper towel.



Again, apply clear tape perpendicular to the seam to hold the seam tight, making sure that the tops of the sheets are flush. Apply tape with slight tension.



Allow tape to set for 10 minutes, and then carefully remove the tape. Once removed, any seam sealer that is on the top of the sheet must be removed immediately with a clean white rag that has a small amount of mineral spirits or Seam Sealer Remover applied (refer to page 1 for details).

*Stubborn seams may need duct tape applied and allowed to hold the seam tight for 24 hours. Full seam sealer cure is 24 hours. No foot traffic allowed on the seams during this 24 hour period.*