Distinct Designs Rubber Sheet

INSTALLATION

This document is intended for professional use to provide minimum requirements for substrate preparation, adhesive application, and special installation requirements for a successful installation of these products, each unique application may require additional or further steps to ensure complete satisfaction. We rely on the expertise and professionals that are installing the products to adjust based on site conditions. Refer to product website to confirm that you have the most current revision of this document as the requirements contained within are essential to maintaining the full system warranty for the product installed. Documentation available at time of installation will be referenced regarding warranty.

RECOMMENDED ADHESIVES

The adhesives below are the recommended adhesives for the installation of this product. The first one listed is the primary installation method recommended for applications when the conditions are met as listed. Select the appropriate application method based on the conditions of the substrate. Refer to the adhesive technical data sheet for additional information and when to utilize a different adhesive.

Adhesive	Substrate	Installation Method	Recommended Trowel
PS-525	Porous	Wet-Set	1/16” x 1/32” x 1/32” U Notch
PS-525	Non-Porous	Tacky-Wet	1/16” x 1/32” x 1/32” U Notch
AW-510	Porous	Wet-Set	1/16” x 1/16” x 1/16” V Notch
U-705	Porous	Wet-Set	1/16” x 1/16” x 1/16” V Notch
U-705	Non-Porous	Wet-Set	1/16” x 1/32” x 1/32” U Notch
EW-710	Porous	Wet-Set	1/16” x 1/16” x 1/16” V Notch
EW-710	Non-Porous	Wet-Set	1/16” x 1/32” x 1/32” U Notch
TP-650	All	Dry-Set	Complete Coverage of TP-650

STORAGE & HANDLING, INSTALLATION & SERVICE ENVIRONMENT, & ACCLIMATION

- All products must be stored in an indoor, climate-controlled (60° - 85° F) space and protected from the elements.
- All products must be stored on a dry, flat, level surface. Carefully stacked aligned neatly and not on edge. Do not stack pallets and protect products from damage.

The reported technical data information for these products is based on a formulation that is designed, manufactured, and evaluated to perform at constant temperatures, not fluctuating more than 10° from normal selected service temperatures from the allowable 60° F (15° C) - 85° F (26° C) range. These products are designed for service on substrate temperatures ranging from 60° F (15° C) - 85° F (26° C) unless otherwise noted in the specific installation section. These products are designed for service within ambient relative humidity between 40% and 60%.

Acclimation of the material is achieved when the following conditions are met within the installation area.

- **Service environment** is defined as the environment in which the materials will be utilized.
- **Service temperature** is defined as the normal setting of the HVAC in the environment in which the material is installed, i.e., typically 70° - 72° F in most commercial applications.
- **Temperature** must be maintained between 60° F (15° C) - 85° (26° C), preferably at the ***desired service temperature***.
- **Relative Humidity** must be maintained between 35% - 65%, understand that Relative Humidity does not affect the installation of the material, but it can affect the functionality of the adhesives. Outside of the ranges, the stated information regarding open times, flash times, & dry times will vary.
- Facility must be fully enclosed, sealed and weather tight.
- Building HVAC must be up and running in permanent operation prior to installation (if temporary systems or systems other than the permanent HVAC systems are utilized it must be capable of maintaining the same conditions as the permanent HVAC and/or service conditions).
- Maintain all products and adhesives in installation area at the ***desired service temperatures*** for a period of 48 hours prior to installation, during the installation and for the service life of the installation.
- It is recommended to utilize a cloud-based or similar ***data logging system*** during installation to provide temperature & humidity data in the event of a warranty issue.

While we do our best to provide quality products and workmanship in our manufacturing facilities, quality installation is the responsibility of the installer. Inspect all material for proper type, color, and matching lot numbers if appropriate. We ask that we are notified of any inaccuracies or defects prior to installation as **we do not pay labor for or material costs on installed materials with visual defects.**

Users are advised to confirm suitability of these products by their own tests and ensure that all adhesives intended for installation meet the requirements of the end user.

By covering a substrate, underlayment, or existing surface, you have indicated acceptance of substrate and installation environment.

If there are concerns regarding this information or the service temperature, substrate temperature or installation environment will not meet these requirements, please contact Technical Services for recommendations prior to installation at solutions@rhctechnical.com, we will be happy to discuss and provide direction or confirmation of the project at that time.

SUBSTRATE PREPARATION

All substrates must be prepared according to the following information (**ASTM F710** & **ASTM F1482** have been used as a baseline, keep in mind our requirements are more detailed than these documents), as well as applicable ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound.

At the time of installation substrates must be free of visible water or moisture, dust, paint, sweeping compounds, post placement curing compound residues, residual adhesives, chemical adhesive removers, concrete hardeners or densifiers residues, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material, or foreign matter. If not, consideration should be taken regarding the effects of these conditions and how they can affect the installation.

It is recommended that all substrates have a ***flatness tolerance*** of 1/8” in 6’ or 3/16” in 10’. Substrates that do not meet this requirement shall have a cementitious patch or self-leveling underlayment installed to flatten the installation area.

All substrates must have all existing adhesives, materials, contaminants, or bond-breakers mechanically removed via scraping, sanding, grinding, or buffing with a 25 grit DiamaBrush Prep Plus tool prior to adhesive installation. In extreme situations, shot blasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a HEPA approved vacuum and flat vacuum attachment to remove all surface dust. Sweeping without vacuuming may not be acceptable.

Do not use solvent/citrus based or other chemical adhesive removers or oil-based sweeping compounds prior to installation.

Regarding substrate preparation when mechanical sanding, grinding, shot blasting, and vacuuming always follow the Resilient Floor Covering Institute’s (RFCI) “Recommended Work Practice for Removal of Existing Floor Covering and Adhesives,” and all applicable local, state, federal and OSHA requirements regarding Asbestos and Silica containment regulations.

NON-APPROVED SUBSTRATES

Concrete substrates that have been abated or prepared with chemical adhesive removers, solvents, or chemical cleaners.

CONCRETE SUBSTRATES

- All concrete substrates, whether on-grade and/or below grade should have an intact and effective moisture vapor barrier which meets the current requirements of **ASTM E1745**.
- On-grade and/or below grade slabs not containing an intact and effective moisture vapor barrier meeting the current requirements of **ASTM E1745** should have a 100% solids moisture control system applied prior to application of patches, underlayments, adhesive and the installation of flooring products for the product warranty to remain in effect.
- All concrete substrates that have an ICRI Concrete Surface Profile (CSP) over 4 shall be smoothed with a self-leveling underlayment or a patch to prevent imperfections from telegraphing through flooring materials.
- Do not install over ***expansion joints***, ***isolation joints***, or other ***moving joints*** in the substrate. These joints must be honored and not filled with products that are not intended for that purpose.
- ***Construction joints, saw cut joints, voids,*** and/or ***cracks*** that are not moving may be covered. These should be prepared appropriately to ensure they do not telegraph through the flooring. Should the slab move and cause the preparation to move, the flooring will telegraph the preparation product. Any resulting visual changes or damage to the flooring resulting from this movement is not covered by the product warranty.

- All concrete substrates must be evaluated per **ASTM F2170** RH testing.
- All concrete substrates previously covered with resilient flooring must be evaluated per **ASTM F1869** MVER testing along with **ASTM F2170** RH testing. Results from MVER testing take precedence over RH testing.

For results exceeding the limitations of the adhesives, the application of a high-quality moisture mitigation system should be employed. **We do not provide warranty for any product or procedure for remediation of high moisture content.** There are several companies that manufacture products suitable for moisture remediation.

Adhesive	RH % Limit	MVER Limit	PH Range
PS-525 NS	99.9%	12 lbs.	≥ 7 - ≤ 11
PS-525 ES	90%	6 lbs.	≥ 7 - ≤ 11
AW-510	90%	6 lbs.	≥ 7 - ≤ 10
U-705 NS	99.9%	25 lbs.	≤ 14
U-705 ES	90%	12 lbs.	≤ 14
EW-710	90%	6 lbs.	≥ 7 - ≤ 10
TP-650	90%	6 lbs.	≥ 7 - ≤ 11

NS = New Slab, ES = Existing Slab previously covered

We suggest you refer to **ASTM F710** Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring and **ASTM F3010** "Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings". Although this testing information and these recommendations are widely accepted within the resilient floor covering industry, there is currently no known exact amount of moisture vapor emission rate or exact % of RH to know exactly when a floor covering, adhesive, or coating system will fail.

- All concrete substrates must be evaluated per **ASTM F3191** to confirm ***porosity (absorption rate)***, this is utilized to determine the method of adhesive application or how the adhesive will act upon the concrete and determine application method of the adhesive.
- All concrete substrates must be evaluated for ***dew point*** prior to installation, the substrate temperature shall be at least 5° F above the dew point.
- All concrete substrates should be evaluated per **ASTM F3441** to determine ***pH*** range of the concrete at time of installation.
- Concrete substrates containing ***radiant heating systems*** are suitable for this product.
  - Reduce the setting of the system to 65° F for the acclimation period. 48 hours after installation the temperature can be gradually increased to a maximum setting of 85° F.

We suggest performing an **ASTM F3311 Mat Bond Evaluation of Performance and Compatibility for Resilient Flooring System Components Prior to Installation** to alleviate any concerns regarding the condition of the substrate and if it is ready to receive resilient flooring.

WOOD SUBSTRATES

Wood substrates must meet local and national building codes and be prepared in accordance with **ASTM F1482** Standard Practice for Installation and Preparation of Panel Type Underlayments to receive Resilient Flooring. Prior to installation, moisture retardant sheeting with a maximum rating of 1.0 perm must be in place beneath the wood subfloor. It shall be overlapped at a minimum of 8" and the crawl space shall be well-ventilated.

- Wood substrates shall be rigid and free of any movement.
- It shall be structurally sound and designed as a resilient flooring underlayment, smooth enough to prevent telegraphing through the flooring product.
- At a minimum, existing stripwood plank or any board types that are unacceptable, must be covered with appropriate underlayment grade plywood.
  - For stripwood subfloors with a face width of 3" or less and is tongue-and-groove and with a smooth surface, use minimum 1/4" thick approved panel to cover and reduce the potential of board telegraphing.
  - For stripwood subfloors with a face width of greater than 3" or not tongue-and-groove, or with a rough surface, use minimum 1/2" thick approved panel to cover and reduce the potential of board telegraphing.
- Countersink nail heads and fill depressions, joints, cracks, gouges, and chipped edges with a good quality Portland cement-based patching compound designed for this purpose.

OSB (Oriented Strand Board), particle board, chipboard, lauan, or composite underlayments must not be used under resilient flooring.

EXISTING FLOORING SUBSTRATES

With ***Terrazzo*** *or* ***Ceramic existing flooring***, ensure existing flooring is a single layer of material and that all materials are clean, dry, sound, solid, well adhered, and free of factory and/or site-applied finishes, waxes and/or contaminants. Remove and repair all loose tiles and utilize a suitable primer and cementitious patch to fill grout lines and other depressions.

Metal substrates must be mechanically sanded/ground/abraded and cleaned of any residue, oil, rust and/or oxidation. substrate must be smooth, flat, and sound prior to installation. When installing in areas that may be subject to topical water or moisture and/or high humidity, an anti-corrosive coating must be applied to protect metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous/non-absorptive substrates.

We highly recommend the removal of ***all other flooring types*** to the original substrate prior to the application of new resilient flooring products. However, we know there are certain times this cannot be or should not be avoided. Please refer to additional documentation regarding existing flooring substrates and how to address them for installation of new flooring.

INSTALLATION

Distinct Designs Evolving Styles Rubber Sheet is recommended to be installed with all rolls in the same direction based on the directional arrows. It is acceptable to cross a head seam in hallway or other layout applications. In certain lighting it could create a shading concern but is normally consistent with industry standards.

Material is production lot controlled by roll numbers and it is suggested to install rolls as sequentially as possible and material from different roll number sequences should not be combined unless shade variation is deemed acceptable.

PREPARING SEAMS FOR INSTALLATION

To prepare seams for installation, there are a couple of methods that are recommended depending upon whether the material will be heat welded or not. Heat Welding is not required for the installation of the product but may be necessary for the desired installation location. Material is 74” wide including the selvage edge on both sides of the roll.

When preparing seams for installation, these processes take place at different times depending upon who is installing the material. The methods and processes are recommendations, but it is the expectations that the installer perform the installation in a satisfactory manner. The biggest concerns are that the material is placed into the adhesive at the appropriate time, seams are not compressed, and material is properly seated in the adhesive by appropriate rolling before adhesive dries.

- ***Seam Cutter Method for Butted Seams (Preferred Method with Wolff Linocut Seam Cutter)***
  - Use a straight edge or salvage edge trimmer to create a clean edge.
  - Overlap roll edges a minimum of 3/4".
  - Set seam cutter flush with the straight edge underneath, making sure it is sitting flat and flush, not at an angle.
  - Cut through the top sheet, ensuring the seam cutter stays flush against the bottom sheet.
  - Prevent stretching or moving material, as multiple cuts may be required to cut through both sheets.
  - Once cut, remove scrap, and check seam.
  - Seam should be tight, but not over-compressed.
- ***Double Cut Method for Butted Seams***
  - Overlap roll edges a minimum of 3/4".
  - Set a straight edge along top sheet, making sure it is sitting flat and flush, not at an angle.
  - Cut through both sheets of material, ensuring that knife blade is straight and vertical.
  - Prevent stretching or moving material, as multiple cuts may be required to cut through both sheets.
  - Once cut, remove scrap, and check seam.
  - Seam should be tight, but not over-compressed.
- ***Trim & Scribe Method for Heat-Welded Seams***
  - Use a straight edge or salvage edge trimmer to create a clean edge.
  - Use a double cut tool adjusted for a gap or a hinge scriber to scribe and cut the top sheet to create a 1/64” gap between sheets.
  - Make sure when cutting material that the knife blade is straight and vertical. The gap will create a path for the grooving tool wheel to follow.

FLOORING INSTALLATION

Ensure substrate is clean, dry, flat, and sound prior to installation. Ensure the layout is squared appropriately within the area. Determine lay out for the area if not provided by dry laying the material with the area. Cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories.

- Apply adhesive according to instructions for specific product in use.
  - ***TP-650 Flooring Tape Pressure Sensitive Adhesive Application***
    - TP-650 is a pressure sensitive tape adhesive that is a white cloth in appearance with a release paper. It is a firm permanent bond adhesive and not intended to be treated as a releasable adhesive
    - Vacuum the surface with a brush attachment, damp mop the substrate, & allow it to fully dry prior to installation
    - Roll out the material preventing wrinkles while making sure the tape is smooth and well bonded to the substrate, using a straight edge to smooth surface will help to prevent wrinkling. Overlap the seams slightly to allow for double cutting with a straight edge to ensure a good seam with no overlapping or spaces (butting seams are acceptable but gaps or overlaps will telegraph through and not covered by warranty).
    - Unneeded cut edges can be removed due to the release paper but make sure work area is clean to prevent contamination.
    - Once the area is covered, release paper can be removed as material is being installed. Installation can begin immediately.
  - ***Wet-Set Application Method is utilized on Porous Substrates only***
    - Adhesive is ready for installation of flooring, usually within 5-10 minutes of application
    - Follow the working time listed and adjust for ambient and substrate conditions
    - Placing flooring into adhesive past the working time will result in a weak bond
  - ***Tacky-Wet Application Method is utilized on Non-Porous Substrates only***
    - Adhesive is ready for installation of flooring, usually within 15-20 minutes of application
    - Can be tested by observing the valleys of the trial ridges and they will be dry, and the ridges will be tacky to the touch but collapse with wet adhesive underneath with moderate pressure from the finger
- Once adhesive has been applied and is ready, carefully roll material into adhesive to avoid trapping air between the adhesive bed and the material
- Ensure that adhesive does not ooze into seams
- To prevent movement, dust, dirt, debris, and topical moisture in or around seams, tape seams after installation using a multi-purpose masking tape intended for flooring and hard surfaces ***(Scotch Blue #2090 Multi-Surface Painters Tape is recommended)***
- Avoid sliding flooring into place as this will force adhesive into the seam
- Working on material that is installed into wet adhesive could cause adhesive to displace. When working off material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement
- Pay close attention to working time to avoid adhesion issues, this may require installing material in smaller sections
- Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate
- Periodically lift material to ensure proper adhesive transfer and ensure adhesive has not surpassed the open time, there should be ***transfer of adhesive to the tile***
- Material that has been cut towards the inside end of the roll may be prone to edge-lifting and curling on end seams and butted seams – if this is evident after installation, use weight to weigh down edges
- Roll material with a 3 section, 100 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll, use a hand roller in areas that cannot be reached with larger roller
- Visually inspect installation to ensure that material has not shifted, and that adhesive has not been squeezed out of joints or compressed onto surface
- Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations

POST INSTALLATION FLOORING PROTECTION

We recommend that the installation of new flooring material be performed after all other trades have completed their work. If this is not possible, properly protecting the new flooring material is essential to prevent damage. So, the following should be considered immediately following the installation process.

- Sweep or vacuum flooring to remove loose dirt, debris, and grit so that it does not become trapped under flooring protection
- Protect newly installed flooring with construction grade undyed kraft paper or protective boards, such as Ram Board, ThermoPLY, 1/8" Masonite panels, or other materials to prevent damage by other trades
- Restrict traffic for a minimum of 24 hours unless utilizing a dry-set application method that allows immediate foot traffic
- Restrict heavy traffic, rolling loads, pallet jacks, furniture, and appliance placement for a minimum of 72 hours
- After 72 hours heavy rolling loads, pallet jacks, furniture and appliance placement can take place with proper protection with 1/4" Masonite panels or similar protective measures. Do not slide or drag pallets or heavy equipment across the installed flooring
- Post Installation, Prior to Service Maintenance requirements can take place after a minimum of 72 hours after the installation is completed

SUPPORT & ADDITIONAL RESOURCES

Product Support Phone & Email	(800) 633 – 3151 / info@flexcofloors.com
Technical Support Phone & Email	(844) 393 – 4044 / solutions@rhctechnical.com
Product Technical Documentation	www.flexcofloors.com
Associated or Related Documentation	Excelsior AW-510 Wet-Set Acrylic Adhesive Excelsior PS-525 Modified Pressure Sensitive Adhesive Excelsior TP-650 Flooring Tape Adhesive Excelsior U-705 Urethane Adhesive Excelsior EW-710 Urethane Enhanced Two-Part Epoxy Adhesive Understanding Excelsior Adhesive Products Technical Bulletin Understanding Installation Substrate Requirements Technical Bulletin Referenced Standards within Technical Documents Technical Bulletin Distinct Designs Rubber Sheet Care & Maintenance

The contents contained within this Installation Sheet may be utilized or copied into another projected related document, but this original document will remain in effect at the time of product installation, this TDS shall not be supplemented or replaced by the resulting project documentation. **Any alterations to the wording or requirements contained in or derived from this document shall void all related warranties.** Prior to acceptance of this document refer to the product website to confirm that you have the most current revision. **These products are intended for installation by professionals, prior to use the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability.**