Technical datasheet

wedi Subliner Dry

- Waterproofing and sheet membrane for thinbed mortar installations
- For high performance Vapor -proofing in Steam Showers/ Steam Rooms
- For use with all types of cement based thinset mortars
- Naturally improving crack protection

General product description

Waterproof and vapour retarding, thin-layer, crack isolating sheet membrane made from highly tear-resistant polyethylene film, which offers optimum connection to tile laying materials thanks to its dual-sided special fleece lamination. The installation over suitable pre-existing wall and floor surfaces and subfloors is smooth and creates a strong layer of protection with highest tear resistance while causing exceptionally little build up in critical areas such as corners. Any thinset mortars suitable for the tile or stone finish or sub-surface may be used on top of the wedi Subliner system or below.

The wedi Subliner Dry System includes wedi Sheet membrane, sealing tape, prefabricated corner tapes and plumbing fixture collars as well as bonding flange drains in a variety of options.

wedi Subliner Dry provides a waterproof tileable surface over suitable pre-existing wall and floors. Use Subliner Dry in combination with ceramic and porcelain tiles, slabs, and natural cast tiles for indoor wall and floor areas.

Areas of application

- General waterproofing and protection over suitable surfaces prior to tiling
- New Construction of Residential/Commercial use buildings
- Renovation in Residential/Commercial use buildings
- Over non waterproof shower surfaces such as mortar bed shower bases and cement or gypsum based wall backing
- Over wooden or concrete substructures on floors

Product features

- 100% waterproof including entire assembly with sheet seams treated with wedi joint sealant.
- 100% mold and mildew proof due to the product ‘s natural composition.
- Exceptional Vapor retarding performance according to ASTM E96 (Method E,; desiccant method at 100°F and 90% RH) determined at 0.05 Perms and exceeding all industry requirements
- Easy and clean to cut to size using a utility knife or scissors. Gridlines and installation tips printed on the product support efficient working.
- No limitation to use of cement based thinset mortars and grouts. Product works perfectly with polyurethane or epoxy based grouts. Wedi recommends the use of modified thinset mortars of class ANSI 118.4 in most common applications and especially where non – absorbing and/ or smooth backing tile is used.

Substrate/ Material Preparation and Requirements Before Installation

General Limitations / Requirements
(Concrete & Wood Subfloors)

- wedi Product Systems are only used for interior installations.
- Do not use as a wear surface or without tile / stone or other suitable coverings.
- Do not use organic mastic adhesives for setting tile on wedi systems in wet areas.
- Use only thinset mortar setting materials suitable for installation and adhesion to the specific substrate / subfloor type.
- Certain substrates such as gypsum based underlayments must be primed prior to thinset mortar attachment.
- Do not use where substrate is subject to excessive moisture and moisture content changes.
- Do not use over substrates including, but not limited to: particle board, luan, asbestos, plank, bamboo, hardwood, chipboard, Sponge backed Vinyl Tile / Flooring, Laminates, Fiberglass based surfaces, Metal or Steel surfaces. Do not install over any dimensionally unstable surfaces.
  Consult wedi for questions regarding specific approved installations over substrates not listed here.
- Subfloors must be clean, even, sufficiently loadbearing and dry (cured).
- Residues, oil, waxes, grease or other contaminants acting as possible bond breakers must be removed.
- Deflection of all subfloor installations must not exceed L/360 for ceramic tile installations and L/720 for dimensional stone installations over wedi product. under consideration of live and dead loads measured between joists.
- Any leveling of the subfloor must be done prior to installing wedi product and tile. Subfloor maximum variation from plane must not exceed ¼" in 10 ft.
- A wedi installation does not replace the need for Expansion and/ or Movement joint placement within a tile installation. Please follow recommendations found in the TCNA guidelines (Detail EJ171).
- All installations shall be in conformance with IRC for residential installations and IBC for commercial installations or applicable building codes
  in a region including the consideration of properly designed substrates and subfloors. All installations including the consideration of properly designed substrates and subfloors should be in compliance with current TCNA Handbook for Ceramic, Glass and Stone Tile Installation.
  wedi's technical recommendations supersede all requirements of IRC,IBC, IPC or TCNA where in conflict and exceeding minimum requirements established by the above mentioned institutions.
- Contact wedi for installation of tile or stone larger than 12 x 12 inches in size to learn more about the best practices and requirements applied in such applications. Follow tile manufacturers' recommendations for appropriate flooring tile choice, setting materials and installation techniques.

Installation over structural wooden surfaces – Flooring

- Plywood subfloor joist spacing must not exceed 16" o.c. with minimum thickness of T&G exterior grade plywood of 19/32 inch. Joist spacing in excess of 16" o.c. and up to 24: o.c. requires a double layer of ¾" Exterior Grade Plywood T&G subfloor sheets, glued and screwed.
- Plywood sheets must be installed with a 1/8" gap between sheets.
- Wood subfloors and structures attached to wooden subfloors must be kept dry and wood moisture content must be maintained at consistent service and use levels and must not exceed 15 %. Where constant moisture or vapor is present, ventilation must be installed to eliminate exposure of the wood structure from below the wedi product layer.

Installation over concrete /cement surfaces – Flooring

- Concrete slabs or other structural cement based substrates must be fully cured (at least 28 days but up to 3 months for new Portland cement based concrete or lightweight concrete under normal conditions, mix ratio and ambient climate). Field verification of full cure (see moisture level indicators below) is necessary to determine a full cure.
  Residual humidity must not exceed the following value per each floor type when setting wedi product and / or tile coverings:
  Calcium Sulphate Screeds: 0.5 %
  Calcium Sulphate Screeds, heated: 0.3 %
  Cement Screeds: 3.5 %
  Gypsum based underlayment: 1 % or per manufacturer recommendation
  Anhydrite Screeds: 0.5 %
  Conduct measures with CM device.
- Please note that wedi product systems might trap rising moisture during subfloor cure time or in general from un-isolated concrete ground floors not equipped with a vapor barrier.
- Concrete Subfloors must not be subject to hydrostatic water pressure.
- Existing cracks in subfloor must be filled and secured.
- Do not use over control and / or expansion joints subject to out-of plane movement or in- plane-movement.

General Limitations / Requirements
(Wall Applications)

- wedi Product Systems are only used for interior installations.
- Do not use as a wear surface or without tile / stone or other suitable coverings.
- Do not use organic mastic adhesives for setting tile on wedi systems in wet areas.
- Use only thinset mortar setting materials suitable for installation and adhesion to the specific wall surface.
- Certain substrates such as gypsum based wall boards must be primed prior to thinset mortar attachment.
- Do not use where framing or wall surfaces are subject to excessive moisture and moisture content changes.
- Residues, oil, waxes, grease or other contaminants acting as possible bond breakers must be removed from wall surfaces prior to installation.
- Do not use over substrates including, but not limited to: sheet wood surfaces, Vinyl tile, glazed tile, Metal or Steel surfaces.
  Consult wedi for questions regarding specific approved installations over substrates not listed here.
- Any leveling of the surfaces/walls must be done prior to installing wedi product and tile.
- All wall surfaces and their substrate including framing must be sufficiently load-bearing, plumb and square.
- A wedi installation does not replace the need for Expansion and/ or Movement joint placement within a tile installation. Please follow recommendations found in the TCNA guidelines (Detail EJ171).
- All installations shall be in conformance with IRC for residential installations and IBC for commercial installations or applicable building codes in a region including the consideration of properly designed substrates. All installations including the consideration of properly designed substrates should be in compliance with current TCNA Handbook for Ceramic, Glass and Stone Tile Installation.
  wedi's technical recommendations supersede all requirements of IRC,IBC, IPC or TCNA where in conflict and exceeding minimum requirements established by the above mentioned institutions.
- Contact wedi for installation of tile or stone larger than 12 x 12 inches in size to learn more about the best practices and requirements applied in such applications. Follow tile manufacturers' recommendations for appropriate tile choice, setting materials and installation techniques.
- Please consider using appropriate setting materials and techniques when installing transparent tile
- Setting materials , when applied over waterproof wedi Subliner Dry, and below tile with low water absorption, must be allowed sufficient time to cure prior to grouting and/ or water exposure such as in shower installations. Consult setting material manufacturer to obtain individual cure and setting time requirements.

Installation over Drywall Surfaces (walls)

- Absorbing gypsum based drywall backer board walls must be primed prior to thinset attachment and Subliner Dry installation. Exempt are such gypsum based drywall products which are laminated with non-absorbing surfaces.
- All drywall assemblies must be taped in seam areas.

Installation over Cement Board Surfaces (walls)

- All cement board surfaces should be wiped over with a damp sponge to remove loose particles and dust as well as reduce the risk of excess water loss of the thinset into the backer unit.
- All cement Board assemblies must be taped in seam areas.

Installation over existing, older tile surfaces or brick/ block walls (walls)

- Tile must be tested for firm adhesion across entire surface prior to installing new product including Subliner Dry and tile. Ensure the substrate and old tile assembly is sufficiently load-bearing and can support the added application of wedi Subliner Dry and tile.
- Loose tile should be removed and area patched.
- Adhesion performance of thinset mortar to old tile must be verified in field and with manufacturer of thinset adhesive product.
- A skimcoat of thinset mortar should be applied over the surface to eliminate low spots in the area of grout lines.

wedi Subliner Dry- Technical Properties

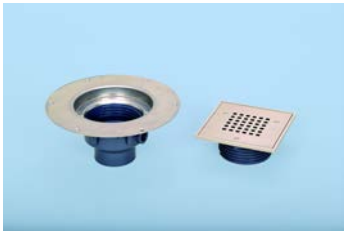
Subliner Dry Sheet Membrane	Polyethylene Core with dual sided Polypropylene fleece surface for perfect thinset mortar anchoring
Fleece Colour	Grey/ Dark Print
Membrane Width	39 inches (1 m)
Membrane Length	16 ft. (5 m) and 98 ft. (30 m).
Membrane Thickness	23 Mil
Weight	.06 lb/sq. ft. / 298 g/m2
Processing temperature	+5°C to +30°C/41°F to 86°F
Compliance with ANSI 118.10-1999, Standard for Load Bearing, Bonded, Waterproof Membranes for Thinset Ceramic Tile and Dimensional Stone	Passed
Fungus & Microorganism Resistance	Passed; No Growth
Seam Strength ASTM D 751 (Min. Requirement 16 lbs in 2" Width)	Passed; 71 lbs
Breaking Strength ASTM D 751 (Min. Requirement 170 Psi)	Passed; 1637 PSI (Longit.)/ 822 PSI Transverse)
Dimensional Stability ASTM D 1204 (0.7% max. length change)	Passed
Waterproofness ASTM D 4068 (Requirement no moisture penetration)	Passed
7 day Shear Strength ASTM C 482 (Min. Requirement 50 PSI)	Passed; 152 PSI
7 day water immersion Shear Strength ASTM C 482 (Min. Requirement 50 PSI)	Passed; 127 PSI
4 week Shear Strength ASTM C 482 (Min. Requirement 50 PSI)	Passed; 132 PSI
12 week Shear Strength ASTM C482 (Min. Requirement 50 PSI)	Passed; 72 PSI
100 day water immersion Shear Strength ASTM C 482 (Minimum Requirement 50 PSI)	Passed; 117 PSI
Water Vapor Permeability acc. to ASTM E96 Method E Desiccant Test at 100°F and 90% RH	0.05 Perms
Robinson Floor Test ASTM C627	Rated "Extra Heavy"
Capillarity	0

Building & Plumbing Code Compliance	
2015,2012,and 2009 International Plumbing Code (IPC)	Compliant
2015,2012, and 2009 International Residential Code (IRC)	Compliant
2015,2012, and 2009 International Building Code (IBC)	Compliant
2010 and 2005 National Plumbing Code of Canada	Compliant
2012 and 2009 Uniform Plumbing Code (UPC)	Compliant
2012 and 2009 National Standard Plumbing Code (NSPC)	Compliant
ANSI 118.10-2008 Load – Bearing Bonded, Waterproof Membranes for Thinset Ceramic Tile and Dimension Stone Installations	Compliant
ASME A112.6.3-2001 (R07) Floor and Trench Drains	Compliant
Worldwide Approvals Quality Management & Control	ISO 9001-2008
North- America Approvals Code Compliances & Quality Management	ICC ES PMG 1189

Drain Technical Properties

The wedi Subliner Dry bonding Flange Drain unit is made of durable and heavy grade plastics and features a stainless steel bonding flange. They connect to all nominal 2" or 3" schedule 40 floor pipes made of ABS,PVC or Cast Iron.

wedi Subliner Drain Pipe Receiver Material	Available in PVC/ABS/Cast Iron
Code Compliance (International Plumbing Code/ IPC): ASME A112.18.2 (no liner/no bonding flange / no weepholes needed with wedi system)	Compliant (ICC PMG 1189)

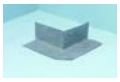


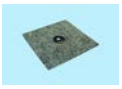
Drain Cover Technical Properties

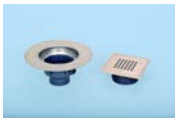
wedi Subliner Drain Cover ; 5 7/8" x 5 7/8" square (incl. frame) Cover is screw fixed to drain assembly; height adjustable	Stainless Steel 304; Brushed

The Product Range

wedi Subliner Dry Sheet Membrane	Dimensions	Unit	Item #
Subliner Dry Sheet Membrane	322 sq.ft. ; 39" x 98 ft.	1 roll	US5000005
Subliner Dry Sheet Membrane	53 sq. ft.; 39" x 16 ft.	1 roll	US5000001
wedi Subliner Dry Accessories	**Dimensions**	**Unit**	**Item #**
Subliner Dry waterproof Sealing Tape	5" x 32.8 ft.	1 pc	US5000002
Subliner Dry Sealing Tape Inside Corner	4 ¾" x 4 ¾" x 2 ¼"	2 pcs/bag	US5000007
Subliner Dry Sealing Tape Outside Corner	4 ½ " x 4 ½ " x 2 ¼"	2 pcs/bag	US5000008
Flexi Collar for sealing around 1/2" to 3/4" shower pipe protrusions	4 ¾" x 4 ¾"	1 pc	US5000033
wedi Subliner Drain Units	**Floor Pipe Connection**	**Unit**	**Item #**
Subliner Dry Bonding Flange Drain PVC	For 2" pipe	1 pc	US5000022
Subliner Dry Bonding Flange Drain ABS	For 2" pipe	1 pc	US5000025
Subliner Dry Bonding Flange Drain PVC	For 3" pipe	1 pc	US5000026
Subliner Dry Bonding Flange Drain ABS	For 3" pipe	1 pc	US5000027
Subliner Dry Bonding Flange Drain CAST IRON	For 2" pipe	1 pc	US5000028
Subliner Dry Bonding Flange Drain CAST IRON	For 3" pipe	1 pc	US5000029







Scope of Delivery

The wedi Subliner Sheet Membrane System is packaged in transparent sheeting. Accessories are packaged in protective bag units. The wedi Subliner Drain is delivered in a protective box and extra protected drain cover.

Complementary Products to install wedi Subliner Dry

wedi Installation Accessories: Sealants & Tools

Warranty Information

Please refer to wedi's 10 year limited warranty on www.wedicorp.com.

MasterFormat™ 2004 Sections

Section 09305 Tile Setting Materials and Accessories

Section 10185 Shower Compartments

Section 09300 Tile

Disposal

wedi Subliner Dry is physiologically harmless . Disposal of the material does not involve any hazardous waste. Dispose of the material with regular building site waste.

Storage

Store flat, cool and not exposed to weather. Store in original , protective packaging.

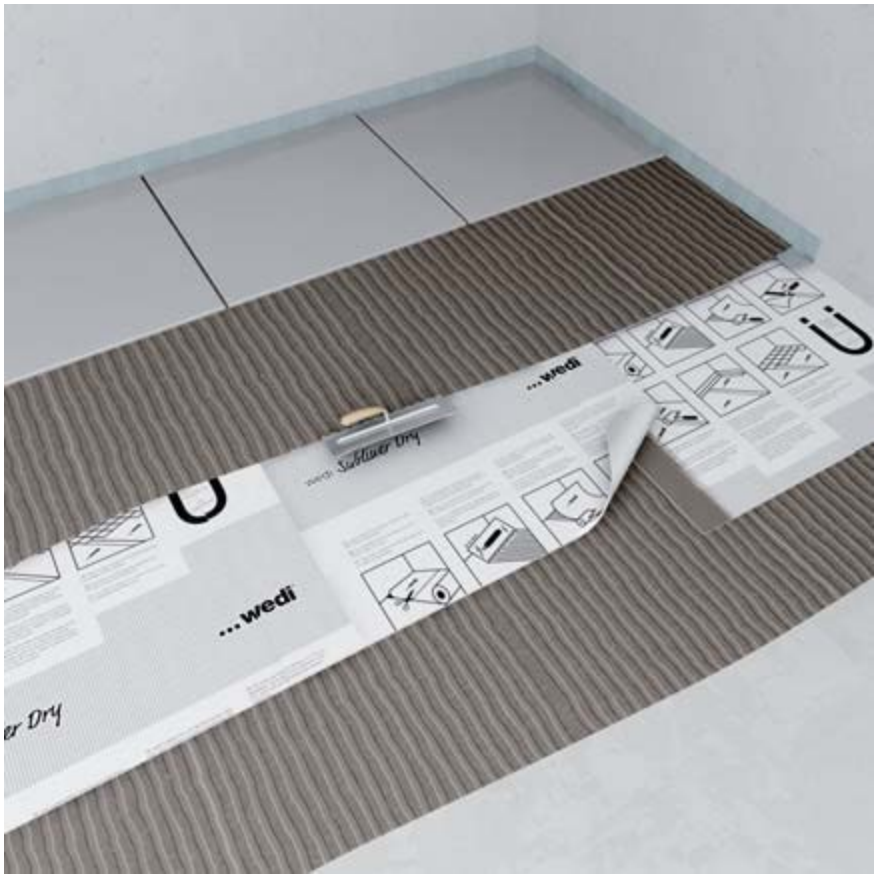
Health & Safety information

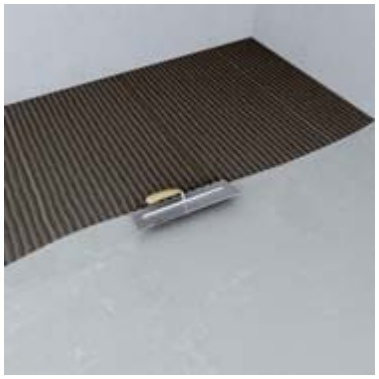
Work appropriate work wear , gloves and safety glasses. Please consult the wedi Safety Data Sheet (SDS) "wedi Fundo" on www.wedicorp.com.

Information about finishing and application options for wedi products, technical recommendations or advice and other information provided by our employees (technical usage advice) is accurate to the best of our knowledge, but is non-binding and is given with the exclusion of any liability. It does not exempt our customers and their buyers from carrying out their own checks and trials on the suitability of the products for the intended processes and purposes.

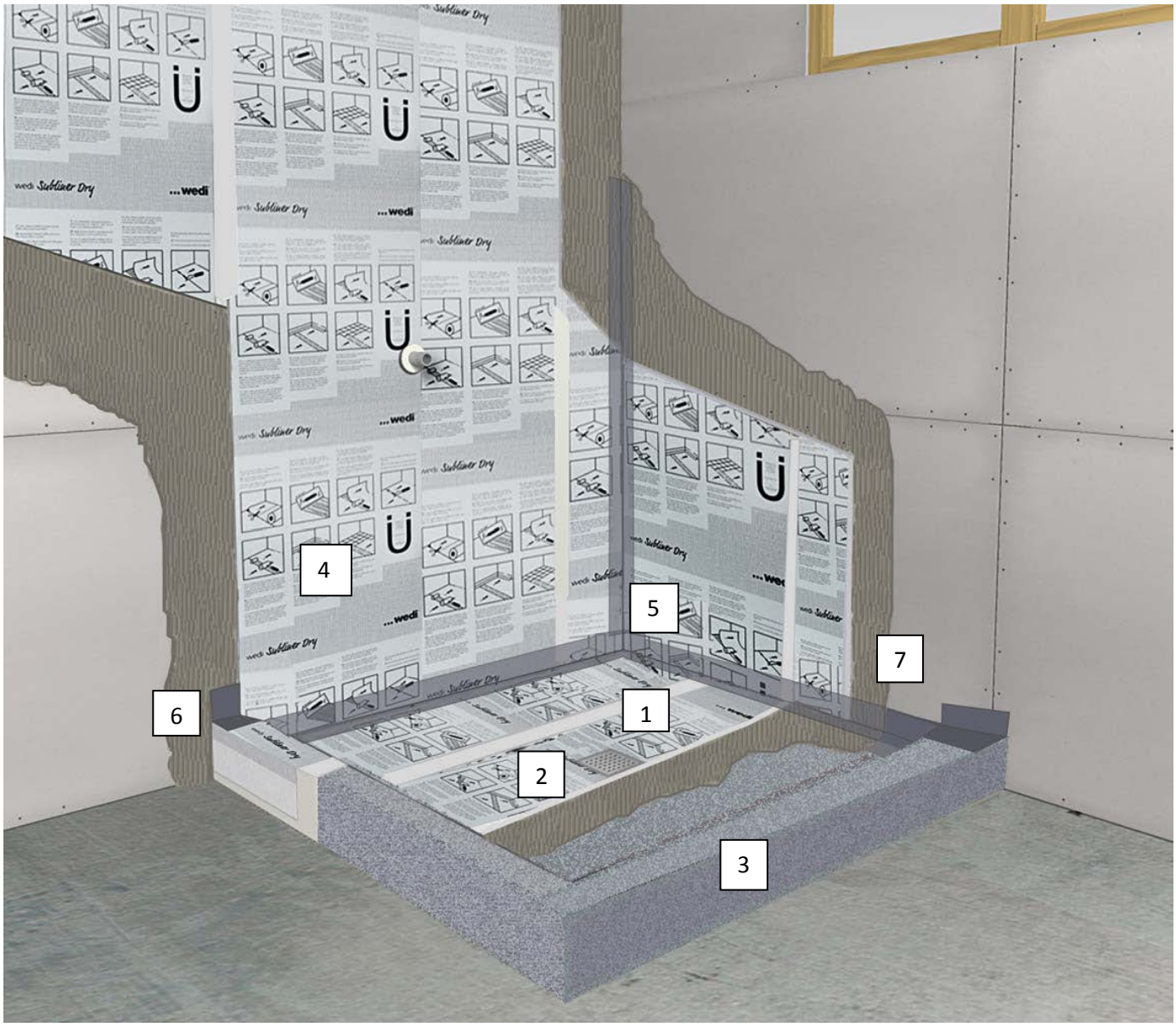
15 – Specifications subject to change without prior notice; errors excepted.

Installation of wedi Subliner Systems on Floors





01. Lay out wedi Subliner Dry and cut to size using a knife or scissors.
02. Apply thinset mortar to the prepared subfloor using a 1/8” x1/8” or 1/4” x 1/4” notch trowel.
03. Insert wedi Subliner Dry with the printed side facing upward and press on with a rubber roller or wooden float.
04. The sheets must overlap 2” at joints / transitions. Apply a bed of thinset mortar with the flat side of the trowel onto the lower mat joint connection area and press flat.
05. Press on the overlapping areawith a trowel or rubber roller. Remove any escaping mortar and air pockets. Cross joints should be avoided.
06. Apply a continuous 1/2” bead of wedi Joint Sealant along all seams and spread flat with a putty knife over the joints.
07. Start setting tile once the thinset mortar under Subliner Dry has sufficiently cured.



wedi Subliner Dry
Installation Over Mortar Bed Showers / On Walls and Shower Floor

01	wedi Joint Sealant	02	wedi Subliner Dry Bonding Flange Drain	03	Mortar bed structure with curb	04	Subliner Dry membrane in modified thinset mortar attached to drywall construction
05	Inside Corner Seal and Sealing Tape	06	Outside Corner Seal	07	Modified thinset mortar		

Step by Step Installation of wedi Subliner Dry over Mortar Bed Shower

Framing, subfloor, plumbing as well as sloped mortar bed shower floor and curb, wall backer board including drywall or cement board is designed properly and installed following manufacturer's guidelines, TCNA guidelines as well as building code. wedi's Subliner Dry bonding flange drain is connected to the floor pipe and its flange can rest on the mortar bed shower floor in a level position and at the correct height. Allow the sloped mortar bed shower floor to cure sufficiently.

Install the wedi Subliner Dry sheet waterproofing membrane over all non- waterproof surfaces including mortar bed shower floor and curb as well as drywall or cement backer units on walls. Make sure drywall is properly primed to bond to thinset mortar. Start by installing wedi prefabricated Subliner Dry inside and outside corners at the shower base perimeter and curb. A 1/8"x 1/8" up to ¼" x ¼" trowel is used to spread modified thinset mortar on the area to receive the corner pieces. The corner pieces are inserted into the thinset mortar and compressed using a flat trowel. After all inside and outside corners are completed wedi Subliner Dry waterproof sealing tape is installed over all vertical and horizontal areas where planes change (wall corners/ floor/curb transition). The wedi sealing tapes are installed in the same way the corner pieces are installed. The sealing tape strips overlap 2" on all corner tape pieces in a thinset mortar bond. Crease the center of the tape with your fingers to help the tape settle into the corners.

Cut and layout full sheets of Subliner Dry waterproofing membrane that will cover the largest areas of your walls and floor. Make sure to cut out for any protrusions or drain hole locations to make the installation easier and cleaner. Leave the shower floor and curb sheets as the last step to waterproof so you can keep walking over the floor base.

On the walls, the sheet membrane can be folded in half from top to bottom and taped at the top so that the top portion of the wedi Subliner Dry and thinset mortar can be installed first without having to spread thinset mortar over the whole wall in one step. A moist sponge is used to wet the cement board surface prior to thinset mortar installation. That way, the board will not consume excessive water amounts from your thinset mix. If working over drywall, the surface is primed first to prepare for safe thinset mortar attachment. It is important to apply only enough thinset mortar to bond wedi Subliner Dry in an area so the thinset mortar does not start to dry on its surface prematurely prohibiting bond.

Subliner Dry is laid over the freshly spread thinset mortar at the top section of the wall and worked into position by hand. More thinset mortar is spread on the lower portion of the wall and the tape from the upper portion of the Subliner Dry is removed. The folded part will fall over onto the bottom half of the wall and into freshly spread thinset mortar where it is to be pressed into the setting bed and positioned.

A flat trowel is used to gently work the wedi Subliner Dry sheet membrane flat working from the middle out. Not too much pressure is used as to avoid pushing all of the thinset mortar from behind the membrane but it is important to work out any air pockets or blobs of thinset mortar that may cause an issue with tile installation. Excess thinset mortar is cleaned off of the edge of the wedi Subliner Dry.

All wall areas are covered as described in step 6. Sheets are to overlap onto wedi sealing tape or Subliner Dry membrane sheets for 2" and connected using thinset mortar between two sheets.

The shower floor is now covered with wedi Subliner Dry. Pre-cut your wedi subliner Dry membrane and cut out for the drain so the Subliner Dry will cover the entire drain flange area. The wedi Subliner Sheet membrane should be cut long enough to cover the shower floor as well as the front face, top face and outer face of the curb if applicable. If the shower is barrier free, the Subliner Dry should be carried at least 6" or further out beyond the shower entrance as needed due to water exposure presence. Thinset mortar is spread over shower floor and curb as needed using a ¼" x ¼" notch trowel. A flat bed of wedi joint sealant (1/8" thick) is applied to cover the entire steel flange of the drain. Subliner Dry is inserted and pressed into thinset mortar whereby a safe drain connection to the wedi sealant on the drain flange is made first. Excess thinset mortar or air pockets are worked out using a flat trowel and towards the perimeter of the shower and not towards the drain.

All Subliner Sheets must overlap at seam areas for a full 2" with thinset mortar in between such connections. After proper drying time of thinset mortar, all visible seams/ connections are finally covered with a ½" bead of wedi joint sealant spread flat using a putty knife .

Tilling may commence once the thinset below wedi Subliner Dry System has fully cured and according to thinset mortar manufacturer's recommendations