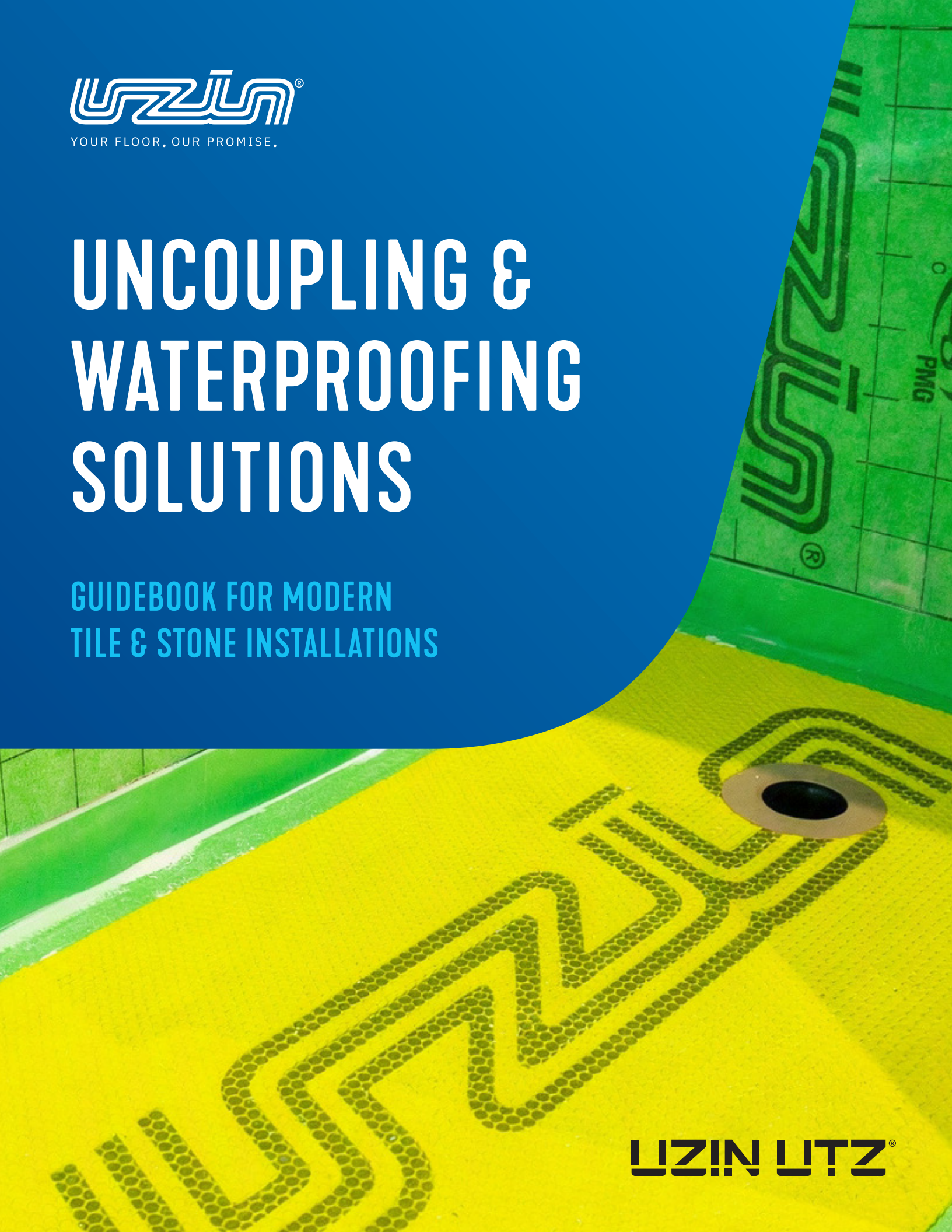




# UNCOUPLING & WATERPROOFING SOLUTIONS

GUIDEBOOK FOR MODERN  
TILE & STONE INSTALLATIONS

The background of the cover features a close-up, angled view of a yellow UZIN UTZ membrane. The membrane has a repeating geometric pattern of interlocking shapes, each filled with a grid of small holes. A circular drain hole is visible in the upper right. In the top right corner, a green UZIN PMG membrane is partially visible, showing its own pattern and a grid of lines.

**UZIN UTZ®**



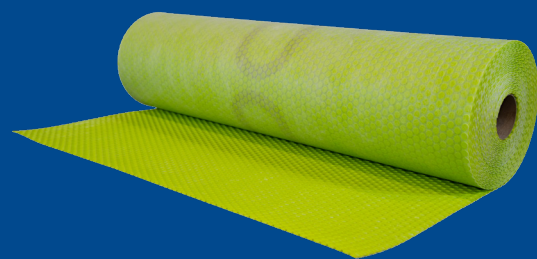
# UZIN UNCOUPLING

## INTRODUCTION

Uncoupling membranes are engineered to manage stresses between tile coverings and the underlying substrates. These stresses include lateral shear, moisture vapor pressure, differential expansion, and substrate shrinkage.

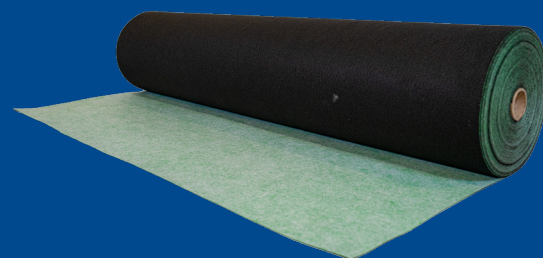
Tile industry standards (e.g., the Tile Council of North America) recognize that uncoupling is critical to preventing tile cracking, delamination, and bond failure. UZIN UX 500 Safeguard and UZIN UX 500 Microguard offer the latest advances in uncoupling membranes to meet these standards.

### UZIN PROVIDES TWO UNCOUPLING SYSTEMS:



#### UX 500 SAFEGUARD

High-tech, fiber-reinforced, robust uncoupling and waterproofing membrane



#### UX 500 MICROGUARD

Thin-profile textile membrane with high bond strength and reduced mortar consumption

Both systems are designed to meet modern substrate conditions, installation timelines, and performance requirements.



## WHY UNCOUPLING IS NECESSARY

### TILE IS RIGID. SUBSTRATES ARE NOT.

This mismatch creates predictable stress conditions:

#### IN-PLANE (LATERAL) MOVEMENT

Substrates expand and contract horizontally due to moisture, temperature, or structural loading. Uncoupling membranes absorb this movement within their core structure, preventing shear transfer to the tile layer.

#### VERTICAL DIFFERENTIAL MOVEMENT

Uncoupling membranes do not bridge vertical displacement. TCNA EJ171 requires movement joints wherever vertical movement is anticipated.

#### MOISTURE VAPOR PRESSURE

Concrete and gypsum substrates release vapor as they cure. TCNA wet-area guidelines emphasize vapor management layers to prevent bond failure and delamination.

#### SHRINKAGE AND DRYING CRACKS

Young concrete and gypsum undergo shrinkage that produces hairline cracks. ANSI A118.12 defines crack-isolation performance criteria for membranes capable of bridging cracks up to 1/8" (3 mm).

#### STRUCTURAL AND CONTROL JOINTS

TCNA EJ171 requires honoring structural joints and treating control joints appropriately. Uncoupling membranes can bridge standard control joints but not structural expansion joints.



# ADVANCED PROTECTION. EFFORTLESS HANDLING.

## UX 500 SAFEGUARD

UZIN UX 500 SafeGuard® is a crack-bridging uncoupling and waterproofing membrane for substrates in interior areas and can be used for new construction or remodel projects. UZIN UX 500 SafeGuard® uses a unique manufacturing process, combined with high-tech fibers, to ensure the membrane lays flat and provides superior mortar adhesion.



Scan for  
Product Video



Scan for  
Product Page

| Item No. | Size                                              | Thickness      | Ready for Tile                 | Compatible with                                               |
|----------|---------------------------------------------------|----------------|--------------------------------|---------------------------------------------------------------|
| 191547   | 39.3" x 98.4'<br>(1 m x 30 m)<br>323 sq. ft. roll | 1/8"<br>(3 mm) | Immediately after<br>placement | UZIN Thinset Mortars—<br>CX 15, 20, 30, 33, 38,<br>and TR 400 |



## FEATURES & BENEFITS

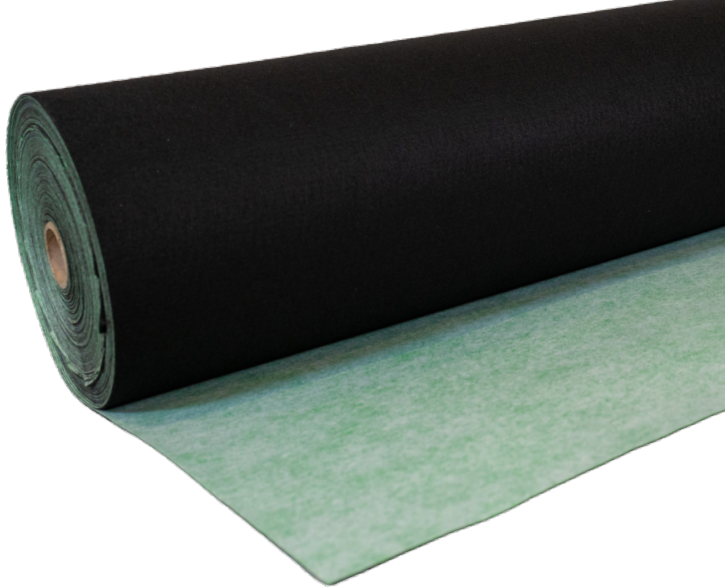
- Installer-Friendly – Lightweight, easy to carry, fit, and cut, with easy-to-fill fiber-reinforced cups
- No Memory Effect – Rolls flat and stays flat
- High-Tech Surface – Polyethylene core with high-tech fibers on top to create a superior bond to thinset
- Fast-Track Installation – Can be installed over young concrete and gypsum substrates to reduce curing downtimes, allowing tile to be installed immediately over the membrane
- Underlayment Grade – Replaces traditional tile backerboards on single-layer plywood or OSB subfloors, making installation faster and lighter
- High Compressive Strength and Load-Displacement – Meets ASTM C627 “Extra Heavy”
- Crack Prevention – Can be used over substrates with existing in-plane cracks to reduce potential transfer of cracks to the tile layer
- Waterproof and Vapor Management – Allows vapor to equalize from the underside, while staying waterproof from the top when seams and perimeter are treated



# LOW PROFILE. HIGH PERFORMANCE.

## UX 500 MICROGUARD

UZIN UX 500 MicroGuard is an advanced membrane underlayment system for tile and stone installations. Like traditional uncoupling membranes, it provides outstanding load-bearing performance, crack isolation, and waterproofing. Thanks to its next-generation non-woven textile construction, UX 500 MicroGuard outperforms geometrically profiled membranes by being thinner, easier to install, and requiring up to 50% less thinset mortar.



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Product Video



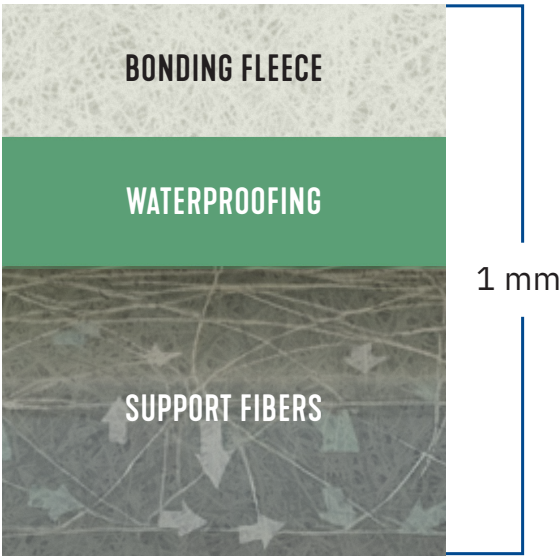
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Product Page

| Item No. | Size                                              | Thickness         | Ready for Tile                 | Compatible with                                               |
|----------|---------------------------------------------------|-------------------|--------------------------------|---------------------------------------------------------------|
| 191846   | 39.3" x 98.4'<br>(1 m x 30 m)<br>323 sq. ft. roll | 1/32"<br>(0.9 mm) | Immediately after<br>placement | UZIN Thinset Mortars—<br>CX 15, 20, 30, 33, 38,<br>and TR 400 |



## FEATURES & BENEFITS

- Installer-friendly – Lightweight, easy to carry, fit, cut, and kneel on
- No Memory Effect – Rolls out flat and stays flat
- Thin Profile – Less thickness and uses 50% less bonding material than traditional uncoupling membranes
- Fast-Track Installation – Install over young concrete and gypsum to reduce curing time, for immediate tile installation
- Underlayment Grade – Replaces traditional tile backerboards on single-layer plywood or OSB, faster and lighter installation
- High Compressive Load-Displacement – Meets ASTM C627 “Extra Heavy”
- Crack Isolation – Applied on substrates with suspected in-plane crack movement up to 1/8” (3 mm), meeting ANSI A118.12 “High Performance”
- Waterproof and Vapor Management – Allows vapor to escape from the underside while remaining waterproof at the top when seams and perimeter are treated





# UNCOUPLING BENEFITS ON VARYING SUBSTRATES

## WOOD SUBSTRATES

**Absorbs "dimensional instability":** The uncoupling membrane allows wood subfloors to expand and contract in-plane without transferring these shifting movements to the rigid tile layer above.

**Replaces the need for an additional layer of tile backer or backerboard:** Engineered to replace thick, heavy underlayments, the membrane handles lateral shear forces so you can tile directly over a standard single layer of plywood or OSB.

**Neutralizes subfloor stress:** By spanning across plywood seams, the membrane completely isolates the tile grid from localized micro-movements that would otherwise crack the grout or tile.

**Protects wood from top-down water damage:** The waterproof polyethylene membrane, when sealed with UZIN WP Seam Tape, creates an impervious barrier that protects the vulnerable wood subfloor from rotting water penetration.

## CONCRETE

**Neutralizes in-plane movement:** If the concrete substrate undergoes lateral expansion or contraction, the membrane absorbs these stresses within its geometric cavities so the tile layer can move independently.

**Manages moisture and vapor pressure:** Open channels on the underside of the membrane create a continuous airspace that allows trapped concrete moisture vapor to migrate and dissipate harmlessly at the room's perimeter.

**Allows for installation over "young" concrete:** Because the membrane isolates the tile from lateral shrinkage stresses and manages vapor emissions, installers can layout tile over green concrete as soon as it is hard enough to walk on.

**Virtually eliminates shrinkage stress:** The membrane bridges hairline cracks that develop in concrete over time, allowing the crack to open laterally beneath the tile without traveling vertically into it.

## GYPSUM

**Manages residual moisture:** Air channels on the underside of the membrane provide a dedicated space for slow-drying gypsum moisture to escape laterally and vent at perimeter joints rather than ruining the tile bond.

**Mitigates high shrinkage and drying cracks:** Acting as a crack-isolation layer, the membrane allows the gypsum to micro-crack or shrink during thermal cycles without transferring destructive forces to the tile.

**Overcomes low surface shear strength:** The membrane distributes heavy, localized point loads into wide, uniform downward pressure, protecting the softer gypsum matrix from failure under live structural loads.

## CONTROL OR CONSTRUCTION JOINTS

**Bridging standard joints:** The membrane isolates horizontal movement, allowing installers to tile directly over standard concrete control joints without mirroring them in the tile layout with flexible sealants.

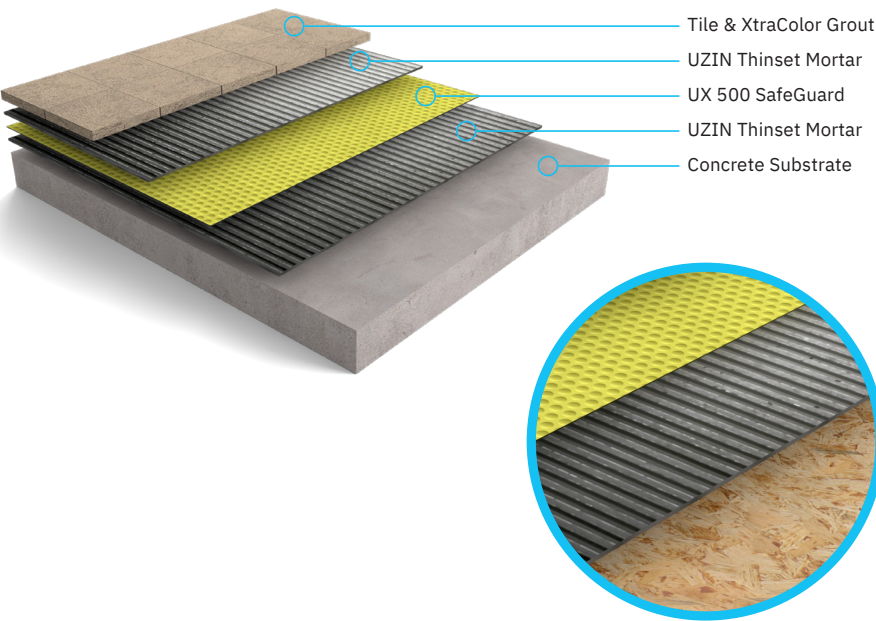
**Structural limits:** While highly forgiving with horizontal concrete movement, uncoupling membranes cannot be used to bridge deep, multi-directional structural expansion joints.

## GROUT JOINTS

**Eliminating shear stress:** By absorbing lateral subfloor movement within the membrane's core, the tiles remain completely still relative to each other, keeping rigid grout lines free from cracking tension.

**Load distribution:** The virtually non-compressible column-like structures distribute heavy weight evenly downward.

## UX 500 SAFEGUARD



### SUITABLE FOR:

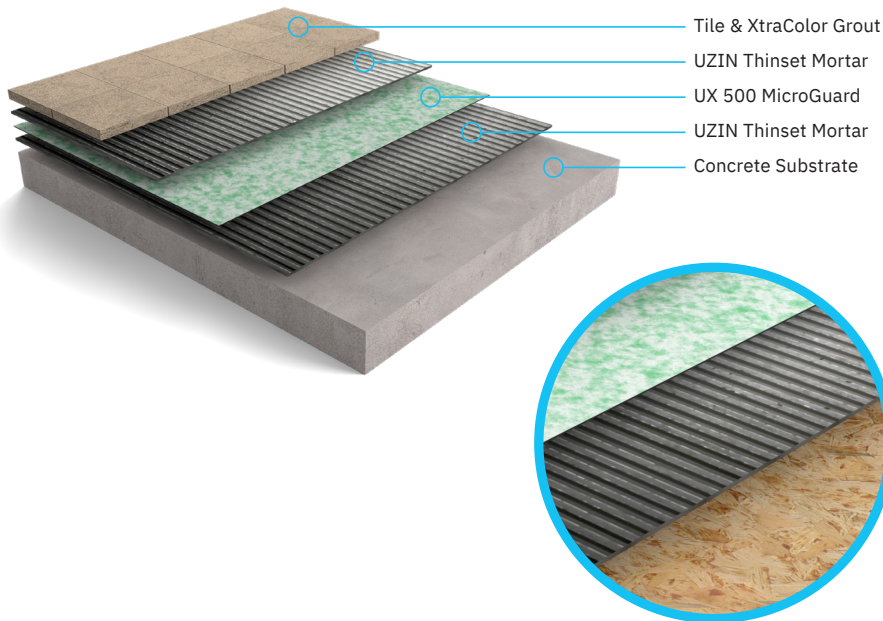
#### SUBSTRATES

- CONCRETE
- PLYWOOD / OSB
- GYPSUM

#### PROJECT TYPE

- RESIDENTIAL
- LIGHT COMMERCIAL
- EXTRA HEAVY COMMERCIAL
- INDUSTRIAL

## UX 500 MICROGUARD



### SUITABLE FOR:

#### SUBSTRATES

- CONCRETE
- PLYWOOD / OSB
- GYPSUM

#### PROJECT TYPE

- RESIDENTIAL
- LIGHT COMMERCIAL
- EXTRA HEAVY COMMERCIAL
- INDUSTRIAL

| PRODUCT             | UZIN TILE MEMBRANES                                                                |                           |                        |                                 |                           |                           |
|---------------------|------------------------------------------------------------------------------------|---------------------------|------------------------|---------------------------------|---------------------------|---------------------------|
|                     |  |                           |                        |                                 |                           |                           |
|                     | Product Name                                                                       | HS 100                    | HS 200                 | HYDROSTOP                       | UX 500 SAFEGUARD          | UX 500 MICROGUARD         |
| ANSI/ASTM/IAPMO     | Membrane Type                                                                      | LIQUID                    | CEMENTITIOUS           | SHEET                           | UNCOUPLING                | UNCOUPLING FLEECE         |
|                     | Package Size                                                                       | 1 gal and 2.5 gal         | 27.5 lb                | 108 sq.ft. and 323 sq.ft. rolls | 323 sq.ft. roll           | 323 sq.ft. roll           |
|                     | ANSI A118.10                                                                       | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |
|                     | ANSI A118.12                                                                       | ✓                         | ✓                      |                                 |                           | ✓                         |
|                     | ASTM E96 Method E                                                                  | > 1.8 Perms (A)           | > 0.10 Perms (A)       | 0.05 Perms                      |                           | 0.01 Perms                |
|                     | ASTM C627                                                                          |                           |                        |                                 | "Extra Heavy"             | "Extra Heavy"             |
|                     | ICC-ES                                                                             | ✓                         | ✓                      | ✓                               |                           |                           |
| COVERAGE            | IAPMO                                                                              | ✓                         | ✓                      | ✓                               |                           |                           |
|                     | At Two (2) Coats                                                                   | 45 – 47 sq.ft. per gallon | 80 – 90 sq.ft. per bag |                                 |                           |                           |
| FEATURES + BENEFITS | Per Roll                                                                           |                           |                        | 108 sq.ft. or 323 sq.ft.        | 323 sq.ft.                | 323 sq.ft.                |
|                     | Flood Test                                                                         | 4 hrs after 2nd coat      | 24 hrs after 2nd coat  | 16 hrs (3 hrs with CX 33)       | 16 hrs (3 hrs with CX 33) | 16 hrs (3 hrs with CX 33) |
|                     | Cure Time to Tile                                                                  | 1 – 2 hrs after 2nd coat  | 5 hrs after 2nd coat   | Immediately                     | Immediately               | Immediately               |
|                     | Drying of Mortar Bed                                                               | 72 hrs                    | 72 hrs                 | Walkable                        | Walkable                  | Walkable                  |
|                     | Membrane Thickness                                                                 | 20 mil dry                | 40 mil dry             | 20 mil                          | 1/8"                      | 1/32"                     |
|                     | Max Moisture                                                                       | 8 lbs per 1,000 sq.ft.    | 8 lbs per 1,000 sq.ft. | No standing water               | No standing water         | No standing water         |
|                     | Mesh or Seam Tape                                                                  | Optional                  | Optional               | When needed                     | When needed               | When needed               |
|                     | Mortar Compatability                                                               | All UZIN CX Mortars       | All UZIN CX Mortars    | All UZIN CX Mortars             | All UZIN CX Mortars       | All UZIN CX Mortars       |
|                     | Bridge Gaps                                                                        | Up to 1/8"                | Up to 1/16"            | Fill with mortar                | Up to 1/8"                | Up to 1/8"                |
|                     | Bonds to Metal & Plastic                                                           | ✓                         |                        |                                 |                           |                           |
| APPLICATIONS        | Storage                                                                            | 24 months                 | 12 months              | 24 months                       | 48 months                 | 24 months                 |
|                     | Submerged                                                                          |                           | ✓                      |                                 |                           |                           |
|                     | Exterior                                                                           | ✓                         | ✓                      |                                 |                           |                           |
|                     | Interior                                                                           | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |
|                     | Steam Room                                                                         |                           |                        | ✓                               |                           |                           |
|                     | Floors                                                                             | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |
|                     | Walls                                                                              | ✓                         | ✓                      | ✓                               |                           |                           |
|                     | Exterior Façade                                                                    | ✓                         | ✓                      |                                 |                           |                           |
| SUBSTRATES          | Gypsum Wall Board                                                                  | Interior dry only         | Interior dry only      | ✓                               |                           |                           |
|                     | Plywood (Interior Dry)                                                             | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |
|                     | Concrete                                                                           | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |
|                     | CBUs                                                                               | ✓                         | ✓                      | ✓                               | Replaces CBU              | Replaces CBU              |
|                     | Mortar Beds                                                                        | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |
|                     | Gypsum Underlayment                                                                | Prime first               | Prime first            | Prime first                     | Prime first               | Prime first               |
|                     | Existing Tile                                                                      | ✓                         | ✓                      | ✓                               | ✓                         | ✓                         |

| PRODUCT      | UZIN THINSET MORTARS                                                                |                |                |                  |                |                 |
|--------------|-------------------------------------------------------------------------------------|----------------|----------------|------------------|----------------|-----------------|
|              |  |                |                |                  |                |                 |
|              | Product Name                                                                        | CX 15          | CX 20          | CX 30            | CX 33          | CX 38           |
| ANSI / ISO   | Package Size                                                                        | 40 lb          | 40 lb          | 40 lb            | 25 lb          | 30 lb           |
|              | ANSI A118.4                                                                         | 325 – 425 PSI  |                |                  |                |                 |
|              | ANSI A118.11                                                                        | > 150 PSI      | 170 – 200 PSI  | 170 – 200 PSI    | 170 – 200 PSI  | > 170 PSI       |
|              | ANSI A118.15                                                                        |                | > 400 PSI      | 400 – 500 PSI    | 400 – 500 PSI  | > 400 PSI       |
| COVERAGE     | ISO 13007                                                                           |                |                | C2TES1           | C2FTS1         | C2TES1          |
|              | 1/4" x 1/4"                                                                         | 80 – 85 sq.ft. | 80 – 85 sq.ft. | 105 – 115 sq.ft. | 57 – 63 sq.ft. | 90 – 100 sq.ft. |
|              | 1/4" x 3/8"                                                                         | 60 – 65 sq.ft. | 60 – 65 sq.ft. | 66 – 77 sq.ft.   | 33 – 39 sq.ft. | 65 – 70 sq.ft.  |
|              | 1/2" x 1/2"                                                                         | 40 – 45 sq.ft. | 40 – 45 sq.ft. | 50 – 60 sq.ft.   | 28 – 33 sq.ft. | 40 – 45 sq. ft. |
| FEATURES     | Pot Life                                                                            | 2 – 3 hrs      | 2 – 3 hrs      | Up to 2.5 hrs    | Up to 45 min   | Up to 3 hrs     |
|              | Open Time                                                                           | 20 min         | 30 min         | 30 min           | 20 min         | 30 min          |
|              | Max Thickness                                                                       | 3/4"           | 3/4"           | 3/4"             | 3/4"           | 3/4"            |
|              | Time to Grout                                                                       | 16 hrs         | 16 hrs         | 12 hrs           | Approx. 2.5hrs | 12 hrs          |
|              | Light Traffic                                                                       | 16 hrs         | 16 hrs         | 12 hrs           | Approx. 2.5hrs | 12 hrs          |
|              | Heavy Traffic                                                                       | 7 days         | 7 days         | 3 days           | 24 hrs         | 3 days          |
|              |                                                                                     |                |                |                  |                |                 |
| APPLICATIONS | Interior                                                                            | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Exterior                                                                            | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Exterior Façade                                                                     |                | ✓              | ✓                | ✓              | ✓               |
|              | Submerged                                                                           |                |                | ✓                | ✓              | ✓               |
|              | Non-Sag Mortar                                                                      |                | ✓              | ✓                | ✓              | ✓               |
|              | LHT Mortar                                                                          | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Thin Bed Mortar                                                                     | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Extended Open Time                                                                  |                | ✓              | ✓                |                | ✓               |
|              | Freeze/Thaw Stable                                                                  |                |                | ✓                | ✓              | ✓               |
|              | Residential                                                                         | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Light Commercial                                                                    | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Heavy Commercial                                                                    |                | ✓              | ✓                | ✓              | ✓               |
|              | Vehicular Traffic                                                                   |                | ✓              | ✓                | ✓              | ✓               |
|              | Membranes (Under & Above)                                                           | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Skimming or Patching                                                                | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Slurry Bond                                                                         |                |                | ✓                | ✓              | ✓               |
|              | Steam/High Humidity                                                                 |                | ✓              | ✓                | ✓              | ✓               |
|              | Ceramic Tile                                                                        | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Glass Tile                                                                          |                | ✓              | ✓                | ✓              | ✓               |
|              | Large Format Glass Tile                                                             |                |                | ✓                | ✓              | ✓               |
|              | Natural Stone                                                                       | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Porcelain Tile                                                                      | ✓              | ✓              | ✓                | ✓              | ✓               |
|              | Gauged Porcelain Panels                                                             |                |                | ✓                | ✓              | ✓               |
|              | Quarry Tile                                                                         | ✓              | ✓              | ✓                | ✓              | ✓               |



# INSTALLATION UX 500 SAFEGUARD

## PREPARATION:

All substrates should be structurally sound, stable, dry, clean, and free of any substance or condition that may reduce or prevent adhesion.

For applications on gypsum or highly porous concrete substrates, it is recommended to prime with UZIN PE 260 or PE 360 PLUS. For applications on existing floor coverings, prime with UZIN PE 280. See the applicable Product Data Sheets for complete information.

## STEP 1:

Roll material out and trim to fit using a razor knife or scissors.

Allow for approximately 1/8" (3 mm) – 1/4" gap from all walls and columns.



## STEP 2:

Mix and apply a UZIN Thinset mortar—such as CX 15, 20, 30, 33, 38, or TR 400—with a 3/16" x 1/4" (5 mm x 6 mm) V-notch or 11/64" x 11/64" (4.5 mm x 4.5 mm) square-notch trowel.

Apply the mortar to the substrate with the flat side of the trowel first (key coat).

Then comb with the notched side to achieve uniform distribution of mortar in one direction.

Avoid troweling in random “swirl” patterns.

(See Product Data Sheet for water ratios and product use)



## STEP 3:

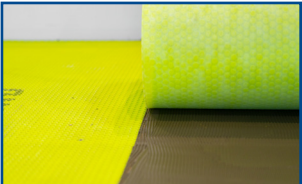
Roll UZIN UX 500 SafeGuard out and into the wet mortar and lightly butt seams.

Then, using a trowel, float, or floor-covering roller (50lbs or less), compact the material into the wet mortar to achieve 100% backing transfer.

Care should be taken to install the material into wet mortar to achieve this.

Temperature and substrate porosity are variables that may affect this.

If installation materials skin prematurely, remove mortar and re-apply fresh material to ensure positive transfer and void-free installation.

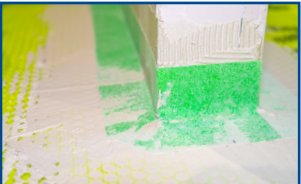


## STEP 4:

Once UZIN UX 500 SafeGuard has been installed, tile can be installed immediately on top of the membrane.



SCAN FOR VIDEO:  
SAFEGUARD INSTALLATION



## WATERPROOFING:

When used as interior waterproofing, it must be detailed as a continuous waterproof system:

- a. Fill and trowel seams at every joint with UZIN HydroStop Waterproofing Seam Tape using a compatible UZIN Thinset mortar.
- b. Install preformed UZIN HydroStop Inside and Outside Corners where needed
- c. Floor-to-wall transitions  
Use UZIN HydroStop Seam Tape to connect the floor membrane to the wall.  
Use UZIN HydroStop Seam Tape, extending a minimum of 2" up the wall and 2" onto the floor.
- d. Penetrations and drains  
Use UZIN HydroStop Pipe Collars for pipe penetrations or run the UZIN UX 500 SafeGuard to the penetration and fill any gaps with UZIN 100% silicone sealant.  
Make a connection between the plumbing fixture and the pipe gap with UZIN 100% Silicone Sealant, or alternatively use UZIN HS 100 or HS 200 installed per data sheets.

## TILE INSTALLATION:

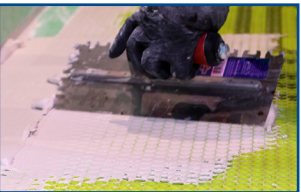
Using a recommended notch trowel appropriate for achieving proper coverage based on the size of tile being installed, apply the mortar to the membrane with the flat side of the trowel first (key coat).

Pull the mortar one direction, then back to the other way to completely fill the cups.

Then comb with the notched side to achieve uniform distribution of mortar in one direction.

Avoid troweling in random “swirl” patterns.

- a. Select the appropriate notch trowel for your application, following directional troweling .
- b. Back-butter tile using the flat side of the trowel as needed, and press tile into the fresh mortar, sliding the tile against the trowel notches to collapse the ridges.
- c. Periodically lift tiles to confirm adequate coverage.
  - i. 80% interior
  - ii. 95% for wet areas



## MOVEMENT JOINTS:

- a. Honor all structural and expansion joints through the tile assembly.
- b. Provide perimeter and intermediate movement joints per TCNA EJ171 or local standards.
- c. UZIN UX 500 SafeGuard can span control or saw cut joints in the substrate, allowing for easy movement joint placement.
- d. Fill movement joints with UZIN 100% Silicone Sealant.

## GROUT:

After the mortar is cured (per the mortar product data sheet specifications), grout joints with UZIN XtraColor Cementitious Grout or UZIN XtraGuard Epoxy Grout.



# INSTALLATION UX 500 MICROGUARD

## PREPARATION:

All substrates should be structurally sound, stable, dry, clean, and free of any substance or condition that may reduce or prevent adhesion.

For applications on gypsum or highly porous concrete substrates, it is recommended to prime with UZIN PE 260 or PE 360 PLUS. For applications on existing floor coverings, prime with UZIN PE 280. See the applicable Product Data Sheets for complete information.

## STEP 1:

Roll material out and trim to fit using a razor knife or scissors.

Allow for approximately 1/8" (3 mm)– 1/4" gap from all walls and columns.



## STEP 2:

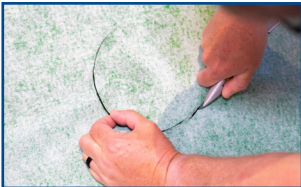
Mix and apply a UZIN Thinset mortar—such as CX 15, 20, 30, 33, 38 or TR 400—with a 3/16" x 1/4" (5 mm x 6 mm) V-notch or 3/16" x 3/16" (5 mm x 5 mm) square-notch trowel.

Apply the mortar to the substrate with the flat side of the trowel first (key coat).

Then comb with the notched side to achieve uniform distribution of mortar in one direction.

Avoid troweling in random “swirl” patterns.

(See Product Data Sheet for water ratios and product use)



## STEP 3:

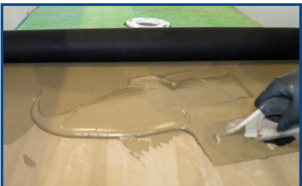
Roll UZIN UX 500 MicroGuard out and into the wet mortar and lightly butt seams.

Then, using a trowel, float, or floor covering roller (50 lbs or less), compact the material into the wet mortar to achieve 100% backing transfer.

Care should be taken to install the material into wet mortar to achieve this.

Temperature and substrate porosity are variables that affect this.

If installation materials skin prematurely, remove mortar and re-apply fresh material to ensure positive transfer and void-free installation.



## STEP 4:

Once UZIN UX 500 MicroGuard has been installed, tile can be installed immediately on top of the membrane.



SCAN FOR VIDEO:  
MICROGUARD INSTALLATION



## WATERPROOFING:

When used as interior waterproofing, it must be detailed as a continuous waterproof system:

- a. Fill and trowel seams at every joint with UZIN HydroStop waterproofing Seam Tape using a compatible UZIN Thinset mortar.
- b. Install preformed UZIN HydroStop Inside and Outside Corners where needed.
- c. Floor-to-wall transitions

Use UZIN HydroStop Seam Tape to connect the floor membrane to the wall.

Using UZIN HydroStop Seam Tape, extend a minimum of 2" up the wall and 2" onto the floor, or alternatively use UZIN HS 100 or HS 200 installed per data sheet.

- d. Penetrations and drains

Use UZIN HydroStop Pipe Collars for pipe penetrations or run the UZIN UX 500 MicroGuard to the penetration and fill any gaps with 100% silicone sealant.

Make a connection between the plumbing fixture and the pipe gap with UZIN 100% Silicone Sealant, or alternatively use UZIN HS 100 or HS 200 installed per data sheets.

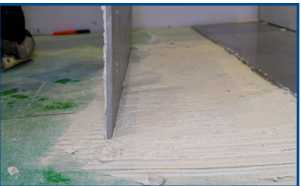
## TILE INSTALLATION:

Using a recommended notch trowel appropriate for achieving proper coverage based on the size of tile being installed, apply the mortar to the membrane with the flat side of the trowel first (key coat).

Then comb with the notched side to achieve uniform distribution of mortar in one direction.

Avoid troweling in random “swirl” patterns.

- a. Back-butter using flat side of trowel as needed and press tile into the fresh mortar, sliding the tile against the trowel notches to collapse the ridges.
- b. Periodically lift tiles to confirm adequate coverage.
  - i. 80% interior
  - ii. 95% for wet areas



## MOVEMENT JOINTS:

- a. Honor all structural and expansion joints through the tile assembly.
- b. Provide perimeter and intermediate movement joints per TCNA EJ171 or local standards.
- c. UZIN UX 500 MicroGuard can span control or saw cut joints in the substrate, allowing for easy movement joint placement.
- d. Fill movement joints with UZIN 100% Silicone Sealant.

## GROUT:

After the mortar is cured (per the mortar product data sheet specifications), grout joints with UZIN XtraColor Cementitious Grout or UZIN XtraGuard Epoxy Grout.

FAQS

**Q:** Are these uncoupling membranes suitable for heated floors?

**A:** Yes. UX 500 SafeGuard significantly increases walking and thermal comfort when used in combination with underfloor heating systems.

**Q:** Can these products be used for outdoor applications?

**A:** **NO**, use the UZIN Balkslim System for outdoor applications.

**Q:** What is the shelf life and proper storage method for each membrane?

**A:** UX 500 SafeGuard has a shelf life of 48 months and should be stored upright in a frost-free, dry environment protected from sunlight.

UX 500 MicroGuard must be used within 24 months after receipt and should be stored in a cool, dry place that is protected against sunlight.

**Q:** What kind of thinset mortar should I use?

**A:** Any of the UZIN CX line of cement mortars or UZIN TR 400 Urethane Adhesive can be used to install the membrane to the substrate and to install the tile to the membrane.

**Q:** What do I use to adhere the membrane to a wood substrate?

**A:** Any of the UZIN CX line of cement mortars that meet ANSI A118.11, or UZIN TR 400 Urethane Adhesive, are suitable for bonding UZIN Uncoupling Membranes to wood substrates.

**Q:** What do I use to adhere the membrane to a concrete substrate?

**A:** Any of the UZIN CX line of cement mortars or UZIN TR 400 Urethane Adhesive.

**Q:** Can I use the uncoupling membrane on an uneven substrate?

**A:** Your substrate needs to be to be flat per TCNA requirements, structurally sound, clean, dry, free of any contaminates, and able to support the tile installation. It is recommended that proper floor prep be completed prior to installing either of the UZIN Uncoupling Membranes.

**Q:** Should I prefill the UX 500 SafeGuard cavities?

**A:** The cups on the UX 500 SafeGuard Uncoupling Membrane should be filled during the tile installation. However, if you have leftover mortar or are not starting the tile installation immediately, you can pre-fill the cups with thinset mortar.

**Q:** Can I install over “young” or “green” concrete?

**A:** Yes, you can install either of the UZIN Uncoupling Membranes over young concrete as soon as it is firm enough to be walked on and there is no standing water.

**Q:** What is the minimum tile size allowed?

**A:** The minimum tile size for UX 500 SafeGaurd is 1" x 1" for residential applications, or 2" x 2" for light commercial applications.

UX 500 MicroGaurd has no minimum tile size limitation.

TESTING AND CERTIFICATIONS

UZIN UX 500 SAFEGUARD

ASTM C627  
14 cycles “Extra Heavy” rating when bonded over concrete  
14 cycles “Extra Heavy” rating over single layer 3/4" or greater plywood subfloor with joists 19.2" OC  
ANSI A118.10 S

UZIN UX 500 MICROGUARD

ASTM E-96 Vapor Permeability: 0.01 perms  
ASTM C627  
14 cycles “Extra Heavy” rating when bonded over concrete  
7 cycles “Light Commercial” rating over single layer 5/8" or greater plywood subfloor with joists 19.2" OC.  
ANSI A118.12  
Crack Isolation “High Performance” rated up to 1/8" (3 mm) of lateral, in-plane crack movement  
ANSI A118.10 SV

WARRANTY

MORE PRODUCTS, MORE SOLUTIONS.

The brand UZIN offers one of the most comprehensive product ranges in the industry today.

Whether it is our BalkuSlim system for outdoor patios, products for LVT, Tile & Stone, or other floor coverings, rest assured, we have solutions for your project.

All of our products are backed up by our standard 10 year warranty. When product systems are combined on a project they qualify for our industry leading 20 year warranty in a approach we like to call +10 warranty.

Lifetime warranties are available for specific project needs and can be discussed with your local UZIN Technical Sales Representative.

We recommend you register your flooring project for our warranty directly on our website at [us.uzin.com/warranty](https://us.uzin.com/warranty).



LIMITED  
10 YEAR

CLASSIC  
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