

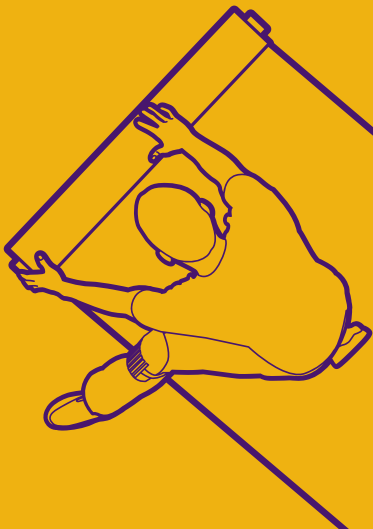
# **Duradek**<sup>TM</sup>

INTRODUCES  
**DURADEK ULTRA TILEDEK**

Enjoy the beauty of tile  
with the peace of mind  
from our proven  
waterproofing membrane  
— Duradek Ultra Tiledek.



Roofing Membrane for Tile Decks



# **tiledek**<sup>TM</sup>

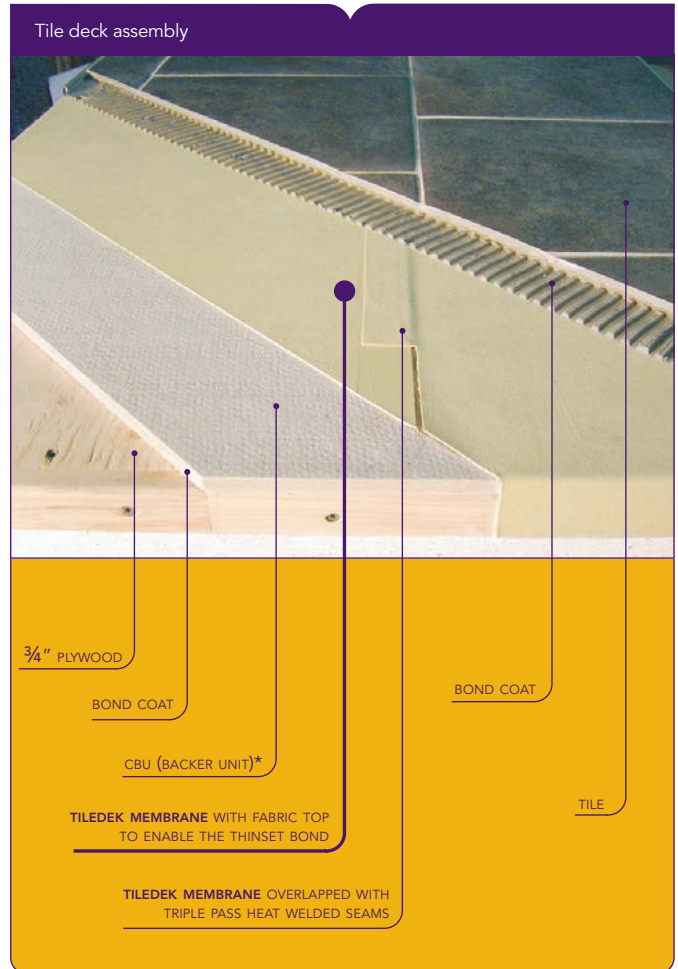
# The Tiledek Solution



There is nothing like the look of tile or slate on that outdoor deck. Unfortunately, the beauty is soon forgotten if water makes its way into your home from the deck, through the tile. It is then clear that most of the attention was given to the appearance rather than proper waterproofing techniques, when the tile was first installed. The resulting repairs can be intrusive and expensive when the cost of replacing the tile is considered.

This is a common story. There seems to be a lack of understanding within the building community about the proper waterproofing of decks, balconies and roofdecks that are overlaid with porcelain tile, slate or some of the other natural stone finishes. That's where Duradek and our proven waterproofing system, fits into the picture.

Duradek has been waterproofing roofdecks since 1974 with PVC sheet membranes that are meant to be walked on.

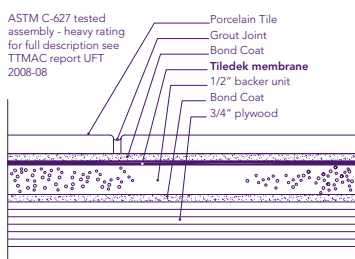


\*Could use CBU or Plywood

Our products are sold and installed by factory trained professionals who specialize in flat surface waterproofing. Many of those Duradek decks have been covered with tile over the years. And so led to an enhanced redesign of our regular Duradek Ultra, which became an anti-fracture, roofing membrane capable of having tile applied over top — Duradek Ultra Tiledek!

## TILEDEK ASSEMBLY WITH PORCELAIN TILE

ASTM C-627 tested assembly - heavy rating for full description see TTMAC report UFT 2006-08



## Robinson Floor test

Tiledek Assembly with Porcelain Tile, as shown to the left, has a rating of "heavy" based on the ASTM C-627 Floor Assembly Test, using the Robinson Floor Tester. This means that this assembly can be used for Commercial purposes. All Tiledek Assemblies are rated for Residential or better.

For more information see Tiledek Approvals, at [www.duradek.com/DuradekUltraTiledek.html](http://www.duradek.com/DuradekUltraTiledek.html).





## WHY THERE ARE SO MANY FAILURES OF TILE DECKS AND BALCONIES

A failed tile deck or balcony is a common occurrence. There are two main types of failures; problems with the tile overlay such as eruptions or cracking and problems with the structure such as leaks into the building and rot. In most cases, the source of the failure is the lack of understanding of the properties and the limitations of the materials being used. Here is a short list of some of the more common issues...

### REASON 1

#### Inadequate waterproofing

There are many products that are considered waterproof but are not installed using correct waterproofing techniques. A knowledgeable contractor is more important than a good product. Poor waterproofing can have far more expensive consequences than just repairing the tile if it involves rot repairs from water leaking into the building.



### REASON 2

#### Waterproofing membrane which is soft allows too much deflection

Any material that is acceptable must be firm enough under all temperatures to support the tile overlay. For example, many decks are waterproofed with Modified Bitumen roofing membranes that get soft in the hot weather and may allow the tile to crack. Any suitable product will be tested with a Robinson Floor tester to meet ASTM C-627.



### REASON 3

#### Poor quality Thinset

A white stain coming from the grout lines or from the underside of the tile is an indication of using a bond coat (Thinset) or grout that is not meant for exterior applications.



### REASON 4

#### Tile is installed with no provision for expansion

There is a recommendation by the tile association of expansion joints every 8-10 feet in any direction. If the tile has no room to expand, tiles will crack or lift.

### REASON 5

#### Structure has too much deflection

On wood frame construction, the floor must be designed to reduce the deflection caused by pedestrian traffic. The tile association recommends ¾ inch plywood covered with ½ inch cement board appropriately fastened.

### REASON 6

#### Tile/Slate not intended for outdoor space

Tiles that crumble or crack may indicate they were not manufactured for exterior use or for the climate where it was installed.



See White Paper on Tiledek for Common Sources of Failure on Tile Decks on Wood Frame Construction

## It's All in the Details!

The Tiledek Solution... Duradek Ultra Tiledek is an approved roofing membrane installed by professional deck waterproofers using Duradek's "Waterproofing Plus" methods for extra protection. We have all the details for a successful tile application — drains, posts, edge trims, curbs and more. See all details at [www.duradek.com/DuradekUltraTiledek.html](http://www.duradek.com/DuradekUltraTiledek.html).



Fig 1: Waterproofing Details – Waterproofing Plus system which has built in extra protection on all critical details.



Fig 2: The Seam – Triple welded, 1½" seam



Fig 3: Cast Drain with Nickel-Bronze Strainer

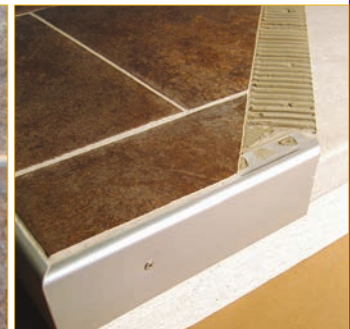


Fig 4: Pre-Finished Metal Drip Edge

## WHO WE ARE

Duradek has been in the deck and balcony waterproofing industry since 1974. We pioneered the use of PVC membranes as an outdoor walking surface and were the first to have an approved PVC single ply 'walk on' roof membrane. Duradek's Ultra membrane is the primary roof material on tens of thousands of roof decks throughout North America. From large condominium and townhouse complexes to single family homes, Duradek is the choice of Architects, Builders, Property Managers and homeowners who understand our attention to detail.

And now Duradek is taking that philosophy and applying it to providing the waterproofing/roofing requirement for the exterior tile industry. We put the same emphasis on the critical waterproofing details while providing an anti-fracture membrane which is designed specifically for the bonding of exterior tile or slate. Duradek contractors are a valuable source of assistance in addressing all the problem areas for tile finishing such as exterior edge finish, guardrail connection points and drainage.



### Duradek Ultra Tiledek meets the requirements of ANSI A118.10

This standard determines the suitability of a **“load bearing, bonded, waterproof membrane for thin-set ceramic tile and dimensional stone application”** or simply put – how well thin-set tile bonds to Tiledek. The Tile Council of North America (TCNA) conducted the tests. The ANSI standard consists of several material tests including seam strength, breaking strength, stability, waterproofness and mould growth. This standard also tests the shear strength of tile bonded to Tiledek under various dry and wet conditions.

Our positive test results are available on the Tiledek Approvals page – [www.duradek.com/TiledekApprovals.html](http://www.duradek.com/TiledekApprovals.html)

## ADVANTAGES OF TILEDEK OVER OTHER WATERPROOFING PRODUCTS

Feature	Advantages
60 mil membrane (compared to others at 40 mils)	Thicker membrane means more protection, especially during the tile installation phase.
Installed only by trained contractors who specialize in roofdeck and balcony waterproofing.	Usually the waterproofing under tile is done by tilers who are not roofing experts and therefore are not familiar with the details required. Our trained contractors give the building owner greater security and peace of mind that their structure will not leak and they will not face the very expensive costs of rot repair.
Duradek Ultra Tiledek is an approved roofing membrane installed with triple pass heat welded seams and typical roofing details instead of the chemically welded seams of other sheet anti-fracture membranes.	Prevents expensive future rot repair.
Duradek Ultra Tiledek achieves a heavy (commercial) rating (Robinson Floor Test) for porcelain tile over a wood frame constructed deck.	The tile is far less likely to crack.
Other anti-fracture membranes are only willing to commit to being used to “waterproof”.	Tiledek is a roof membrane giving the ultimate protection and peace of mind.
Duradek has over 35 years of roofing/waterproofing experience to draw upon.	Peace of mind knowing the structure is protected.

## WARRANTY

Duradek Ultra Tiledek has a 10 year written waterproofing warranty. The Duradek Applicator also provides a workmanship warranty for the installation of the Tiledek.

Tiledek guarantees to provide a fabric surface of the Tiledek membrane to which a thinset bonding adhesive (polymer modified mortar) will adhere.



1722 Iron Street, North Kansas City, USA 64116  
8288 - 129 Street, Surrey, British Columbia V3W 0A6

T 816 421 5830  
T 604 591 5594

Toll-free 800-338-3568  
Toll-free 866-591-5594

[Duradekus@duradek.com](mailto:Duradekus@duradek.com)  
[Duradek@duradek.com](mailto:Duradek@duradek.com)

[www.duradek.com](http://www.duradek.com)