

## Ergonomic

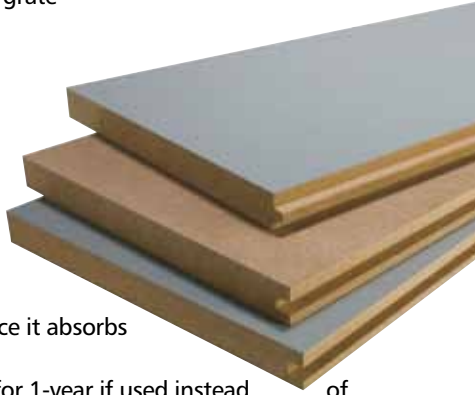
- ResinDek® is more comfortable to walk and work on
- Reduced tibial shock=fewer lost time injuries
- More resilient work surface than bar grate or concrete

## Environmental

- ResinDek® is a **Net Energy Producer** (80% more energy at end of life cycle than consumption)
- ResinDek® produces **67% less smog** and **50% less hydrogen ions** than concrete
- ResinDek® is a **carbon negative product** since it absorbs more during its life cycle than it emits
- ResinDek® can take **56 cars off of the road** for 1-year if used instead of concrete on a 50,000 sq. ft. mezzanine

## Economic

- ResinDek® saves \$3-\$5 per sq. ft. vs concrete
- ResinDek® saves \$2-\$4 per sq. ft. vs bar grate



### ResinDek® Mezzanine Floor Panels



Product Name	Pallet Jack Load Limits **	Thickness	UF	Finishes Available		
				GDS2	ESD	TriGard™
ResinDek® LD	up to 2,000 lbs.	3/4"	■	■	■	■
ResinDek® SD	up to 2,500 lbs.	3/4"	■	■	■	■
ResinDek® MD	up to 3,500 lbs.	3/4"	n/a	■	■	■
ResinDek® HD	up to 4,500 lbs.	3/4"	n/a	■	■	■
ResinDek® MAX	up to 8,000 lbs.	1-1/2"	n/a	■	■	■
* ResinDek® Xspan®	up to 3,000 lbs.	1-1/8"	n/a	■	■	■
* ResinDek® Xspan® FR	up to 3,800 lbs.	1-1/8"	n/a	■	■	■

**Finishes Available**  
 Unfinished  
 Gray Diamond Seal 2™  
 ESD Certified Static Control  
 TriGard™

**Options**  
 Invisi-Loc® fasteners  
 T & G Configurations

*All ResinDek Products can contribute towards earning points for LEED® qualified buildings.*

\* No Corrugated Required  
 \*\* Includes Weight of Pallet Jack

**resinDEK®**  
 the panel of experts<sup>SM</sup>

Mezzanine Flooring

# Provides Ergonomic Mezzanine Solutions



ResinDek® **decreases** the risk of work injuries and insurance claims

Concrete and bar grate **increase** the risk of injuries and insurance claims

Concrete and bar grate mezzanine floors increase the risks of:

- Workplace Injuries
- Insurance Claims
- Higher Insurance Rates
- Workforce Absenteeism



Walking on concrete and bar grate flooring is like carrying an extra 12-18 lbs compared to ResinDek®.



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## Ergonomic

Why the Ergonomic performance of your Pick Module, Elevated Platform or Mezzanine flooring should matter to you!

### The Warehouse Workforce has a Higher Injury Rate than other occupations

The 2014 Bureau of Labor Statistics showed that warehouse injuries occurred in 5.0 out of 100 employees, compared to 3.2 per 100 in all other occupations. Warehouse injuries make up 1% of the total workforce.

### The Warehouse Workforce is Growing

The Warehouse workforce comprised 0.3% of the work population in 2015. This means that a warehouse worker is 3x more likely to get injured on the job than the workforce at large.

### Warehouse Injuries and Absenteeism Reduce Productivity

In 2014, 34,300 cases resulted in missed days at work, and 95% of absences were a direct result of on the job injuries.

Almost everyone at some time has experienced pain or discomfort from walking or running on hard surfaces for long periods of time. So the mezzanine work floor you install deserves some thought for productivity, safety, and workforce comfort.

What's even more amazing is that industry reports state the annual cost of workplace injuries at about \$189 billion in 2011, which exceeds the combined profits reported by the 16 largest Fortune 500 companies. In addition, there were a total of 60 million days lost from workplace injuries in 2011, at an average cost of \$37,000 per injury.



*Field data collected by The Ohio State University's Institute for Ergonomics of walking on bar grate and concrete surfaces produced significantly higher impact forces on the body than ResinDek, resulting in higher risk of injuries and fatigue over time.*

## Highlights of Research Conducted by Dr. Steve Lavender for The Ohio State University's Institute for Ergonomics

**Location of Research:** A world leader in 3rd party logistics location and an internationally known apparel retailer location. Both locations that volunteered were in the vicinity of Columbus, Ohio, and were over 500,000 in square feet. The ergonomic test data collected at these two locations was conducted on concrete, bar grate and ResinDek® flooring surfaces.

### Testing Parameters:

- 47 volunteers at two different facilities
- Ordinary work routine
- Pedometers collected at the end of an 8 hour shift
- With a 30" pace, employees averaged 21,000 steps, or 10 miles per day!
- Used accelerometers on volunteers
- Measured tibia acceleration on various surfaces and different walking speeds
- Wore their usual work shoes during the collection process (athletic shoes and work boots primarily)



*A researcher from The Ohio State University takes tibial shock readings on a ResinDek® mezzanine.*

### Summary of Biomechanical Analysis of Walking on ResinDek and Other Mezzanine Floors

- Significantly less tibial shock with ResinDek® at work rate walking speed\*
  - Concrete increased the tibial shock by 5.4% at the work rate walking speed
  - Bar grate work rate walking pace showed an increased tibial shock rate of 10.6%
- \*Work rate walking speed defined as walking 15% faster than an average walking pace.

### So what does this really feel like?

When you convert the data from tibia shock force to pounds you can easily see and feel the difference when working all day on ResinDek® compared to concrete or bar grate.

- Working on Concrete is Equal to adding 12 lbs. to your body compared to ResinDek®.
- Working on Bar Grate is Equal to adding 18 lbs. to your body compared to ResinDek®.

**Why would you ever want to *add more weight* to your employees who are already packing, loading and moving products?**