

# Lab Floors by Ecore

## BUILT ON itsTRU™ TECHNOLOGY



“ I have been a Lab Planner/Architect for 30 years and during programming and planning sessions with lab users a comment that is heard nearly without exception are complaints about standing on hard floors all day. Often they end up acquiring floor mats to put in front of their bench areas to mitigate the discomfort. At the same time, they grouse about how these mats interfere with instrument and supply cart traffic. This product seems to address the need quite effectively.”

JOHN C. RA

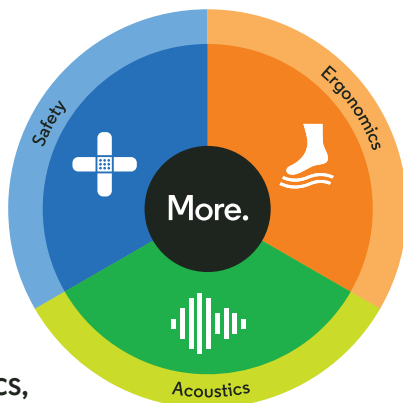
Ecore’s itsTRU™ technology fusion bonds a dense 5mm vulcanized composition rubber (VCR) sublayer with a 2mm performance layer to create an interactive floor surface engineered to perform in a lab environment that requires durability, maintainability, and while supporting the work of the staff.

- **Vulcanized Composition Rubber definition (VCR)** — ultra-dense composition rubber that is molded under intense compression to create a “muscle” that delivers stored energy to perform in the lab environment
- 2mm performance layer of either phthalate-free vinyl or calendared rubber
- **PUR wear layer** — superior chemical resistance and enhanced maintainability to meet sanitary requirements in the lab space
- ASTM F-970-Static load to handle weight of lab benches, case goods, and shelving
- ASTM F-2662-Dynamic load to support rolling carts, equipment and caster chairs

A lab floor should do **More.**

THE SCIENCE BEHIND THE FLOOR

Ecore’s itsTRU™ technology delivers: Ergonomics, Acoustics, and Safety



CHEMICALS	1 hr.	24 hrs.	CHEMICALS	1 hr.	24 hrs.
<b>ACIDS</b>					
			Solvents		
Hydrochloric Acid HCl (5%)	0	0	Acetone	0	0
Sulphuric Acid H2SO4 (5%)	0	1	Benzene	0	0
White Vinegar CH3COOH (5%)	0	0	Butanol	0	0
			Carbon tetrachloride		
<b>BASES</b>					
Ammonium Hydroxide NH4OH (5%)	0	0	Chloroform	0	0
Sodium Hydroxide NaOH (5%)	0	1	Ether	0	0
			Ethanol		
<b>OXIDIZING AGENTS</b>					
Bleach Sodium Hypochlorite (NaOCl) (5.25%)	0	0	Ethyl acetate	0	0
Silver Nitrate (5%)	0	1	Formaldehyde	0	0
			Gasoline		
<b>STAINING AGENTS</b>					
Betadine	0	0	Kerosene	0	0
Coffee	0	0	Methanol	0	0
Cresol Red	0	0	Methyl ethyl ketone	0	0
Disinfectant Phenol (5%)	1	2	Mineral Oil	0	0
Grape juice	0	0	Rubbing Alcohol Isopropyl Alcohol (IPA) (70%)	0	0
Iodine	1	1	Toluene	0	0
Methylene Blue	1	1	Trichloroethylene	0	0
Olive Oil	0	0	White Mineral Spirits	0	0
Proviiodine	0	0	Xylene	0	0
Urine	0	0	<b>MISCELLANEOUS</b>		
Wright’s Blood Stain Solution	1	1	Quaternary (EDTA)	0	0
			Cigarette burn (1 min)	Burn (no hole)	Burn (no hole)

Coding system of results:  
 0: no change  
 1: slight discoloration  
 2: moderate discoloration  
 3: severe discoloration

More comfortable & ergonomic

# Because wellness matters



Ecore creates better ergonomic outcomes for people interacting with surfaces throughout the built environment. There are several key dynamic forces that directly impact the ergonomic performance of a flooring product:

**Force Reduction** = the percentage of the force of impact that is reduced by the surface.

**Energy Restitution** = the percentage of the force of impact that is returned to the source.



The objective is to create surfaces that meet the basic hardness requirement, while maximizing both Force Reduction and Energy Restitution given the activities of the staff in the space. Creating a balance between these two dynamic forces results in enhanced Ergonomic benefits for the user.

This balance is represented by  
**NRG = Force Reduction** ↔ **Energy Restitution**

## The A-B-C's of Ergonomics

### Anti-fatigue

Anti-fatigue has been the attribute of choice for lab/ergonomic flooring applications. Ecore focuses on ergonomics in a more comprehensive way than other flooring manufacturers. We have engineered our floors to provide force reduction and energy restitution, in order to make a floor more comfortable, efficient, and effective for the people that are working on them.

### Balance

Having the right balance in a surface becomes critical over time. At the end of the work day, using a surface that has the right balance of force reduction and energy restitution will result in the user having more energy and less pain and discomfort. The result: an optimal balance between comfort and fatigue resulting in enhanced wellness for the staff.

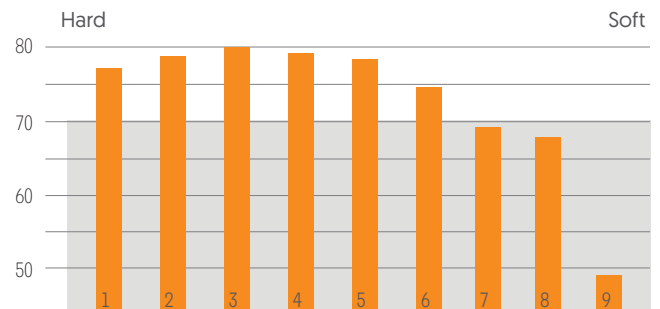
### Consistent

The entire floor should have the same surface quality to reduce balance adjustments for standing, walking, or rolling. An ergonomic floor should eliminate trip hazards and other roller mobility challenges. Reduction in chronic pain may lead to improved productivity and quality of care, less absenteeism, fewer workman comp claims and an overall improvement in quality of life for dedicated staff.



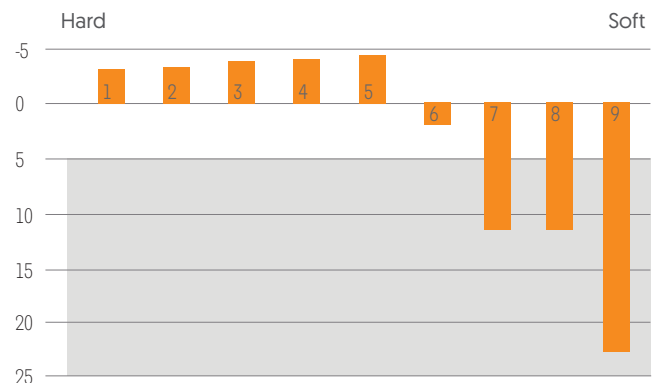
## How Ergonomic is Your Surface?\*

% Energy Restitution



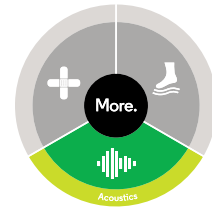
1. Concrete 2. Heterogeneous Sheet Vinyl 2mm 3. Rubber Sheet 2mm 4. Homogeneous Sheet Vinyl 2mm 5. VCT 6. Linoleum 7. Bounce 2 Motivate 8. Integrity Motivate 9. Carpet 34oz 1/10 ga loop \*Based on the Deltac Test

% Force Reduction



The power of acoustics

# Because noise matters



Reducing the level of noise in a laboratory environment may result in fewer distractions, less stress, better focus, enhanced communication, and optimal efficiency for the users.

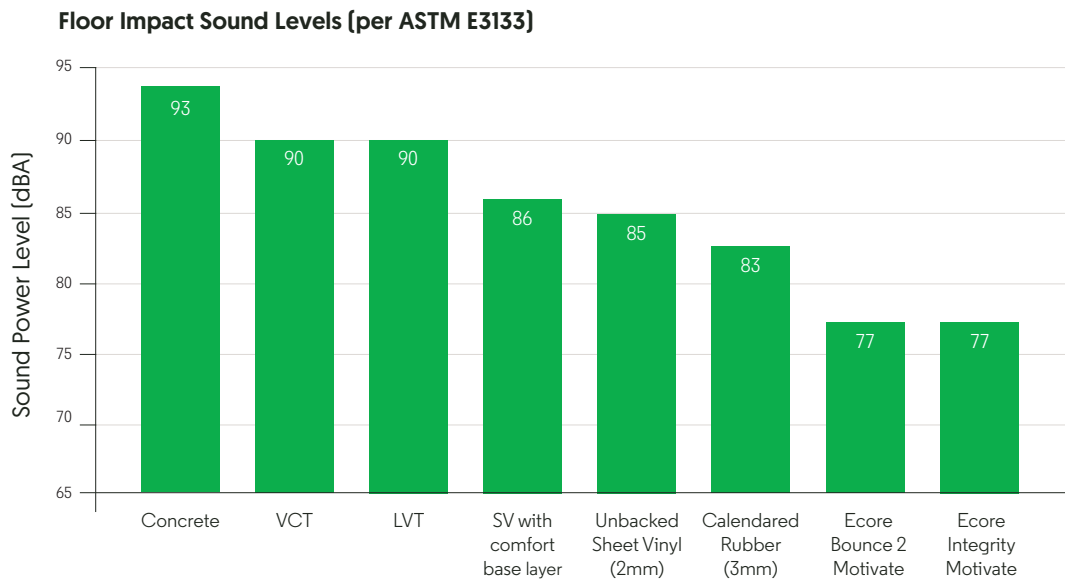
Floor impact sound can be a major source of noise in a multitude of spaces, such as laboratories, hospitals, schools, and offices. In late 2018, ASTM introduced a new standard for measuring the floor impact sound of various floor coverings (ASTM E3133). This standard focuses on sound generated in a room and measured in the room.

Flooring featuring itsTRU™ technology soften the impact, resulting in less impact noise from footsteps, rolling carts and dropped objects. ItsTRU™ technology offers the benefit of enhanced acoustics while satisfying laboratory requirement for sanitary and easy-to-clean surfaces.

**Floor Impact Sound**  
ASTM E3133



**Impact Sound Transmission (IIC)**  
ASTM E492



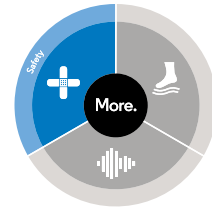
*Testing was performed by Intertek, an independent IAS-certified lab in York, PA. The "SV with comfort base layer" sound level was provided from the manufacturer's published test data.*

Ecore's itsTRU™ technology is engineered to reduce the sound generated by impact energy. By striking the perfect balance between force reduction (energy absorbed by the surface) and energy restitution (stored energy released into the object), premium rubber flooring changes the characteristics of sound and reduces noise levels. VCT and LVT generate a 146% increase in perceived loudness relative to fusion-bonded flooring products.

	Decibel Testing	Force Reduction	Energy Restitution
Ecore Integrity Motivate	77 dB(A)	11.2%	67.4%
3mm Calendared Rubber	83 dB(A)	-0.2%	80.6%

Making people's lives better

# Because safety matters



Falls and injuries continue to challenge providers and directly impact the patient's experience, outcome, and quality of life. How can a floor help prevent serious injuries when falls occur?

## The TRU Facts

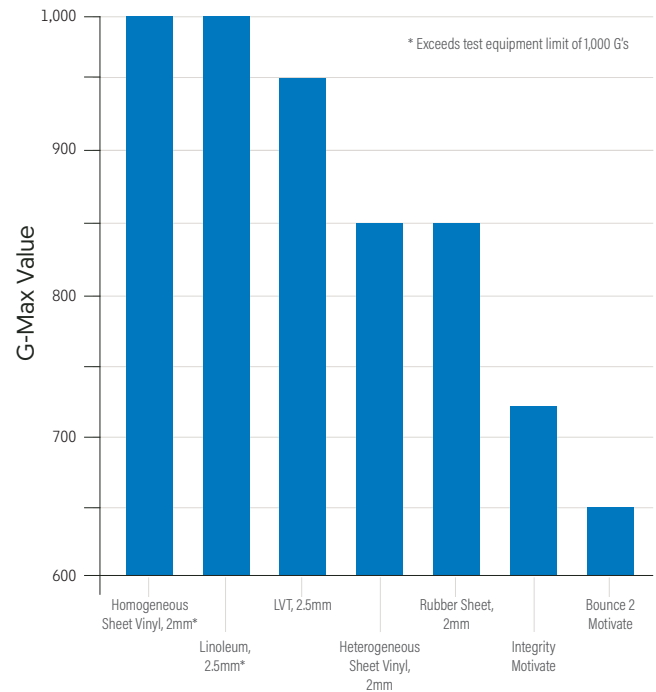
### Patient Safety

itsTRU™ products have been tested for G-Max using the Clegg Machine protocol. A conventional mathematical formula is often used to convert Clegg test results to ASTM F355 result for comparison purposes.

Using this protocol to compare traditional healthcare flooring products, the Ecore itsTRU™ technology demonstrates up to a 35.5% reduction in impact acceleration. Reducing injury from falls may reduce unbudgeted and non-reimbursable treatment charges.

It is generally acknowledged that a standardized test protocol measuring force reduction in a healthcare environment does not exist. This should not deter analysis of products to measure and compare the force of impact but rather motivate the industry to create such testing standards. Until that time the physics involved in force reduction can still be used to determine optimal flooring solutions related to patient falls.

## How Supportive is Your Surface?



Benefiting the natural environment

# Because the planet matters

Enhancing the wellness of the lab team while enhancing the sustainability of the planet.

### Ecore by the Numbers

- 112 millions lbs of truck tires diverted from landfill annually
- 67% post consumer recycled content
- Upcycled product with enhanced value
- Manufactured in the USA
- Awarded Sustainability Leader by MindClick



ecore™

For more information about lab flooring contact us at [ecoreintl.com](http://ecoreintl.com) 877.258.0843