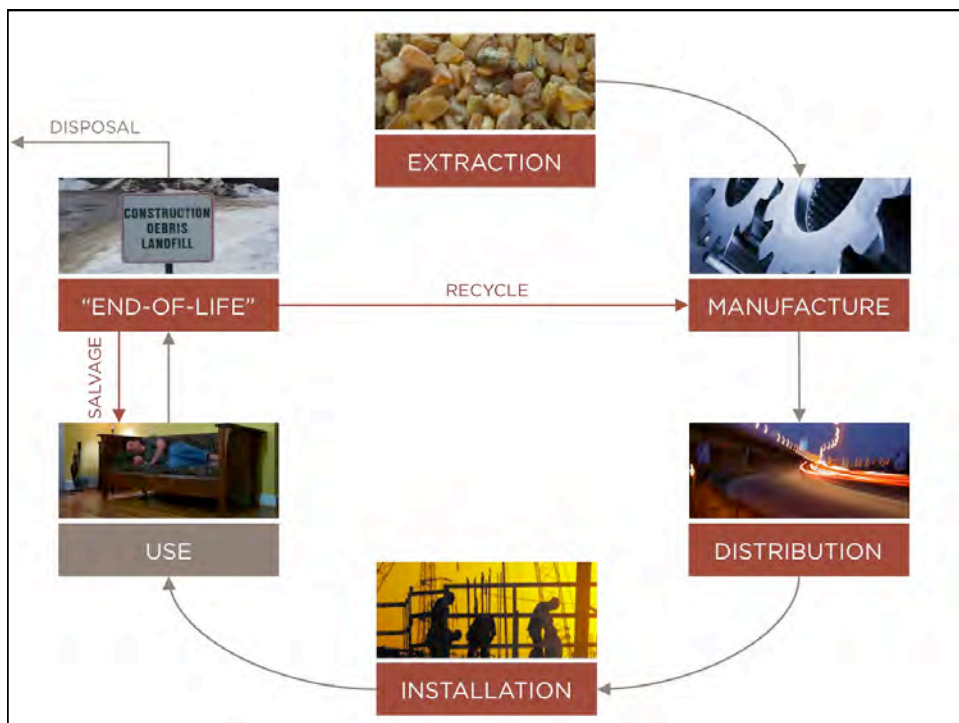
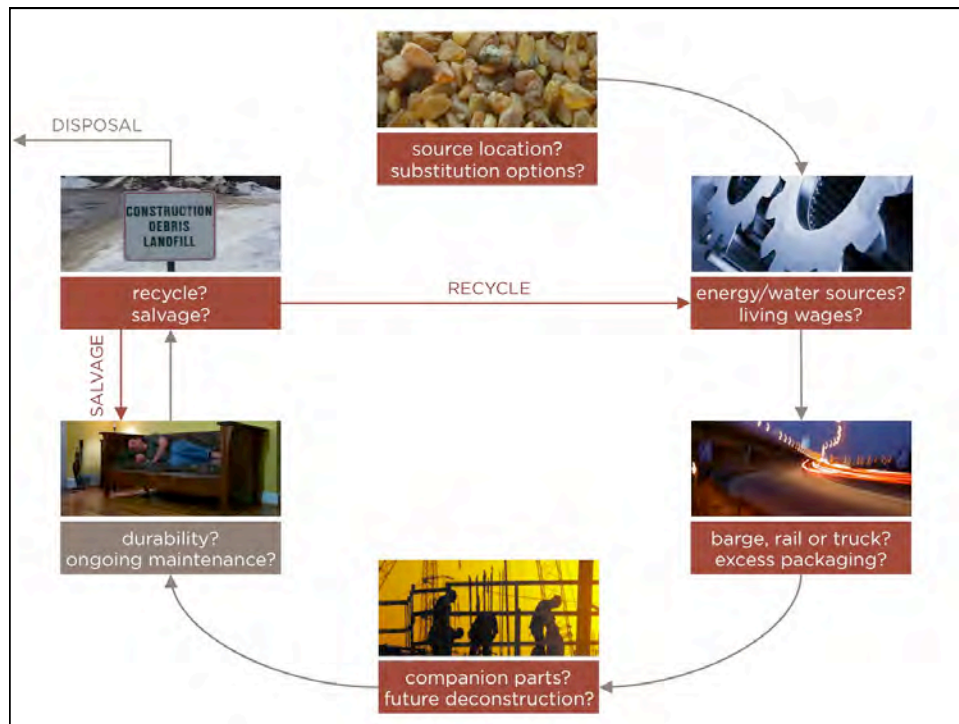


You never change things by  
fighting the existing reality.  
To change something, build  
a new model that makes the  
existing model obsolete.

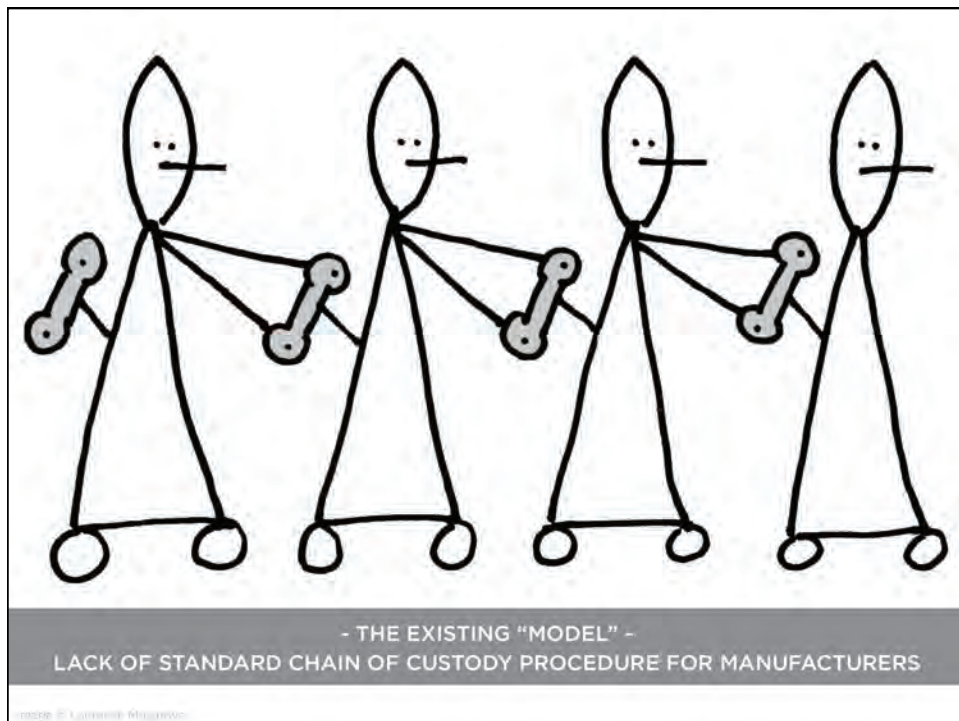
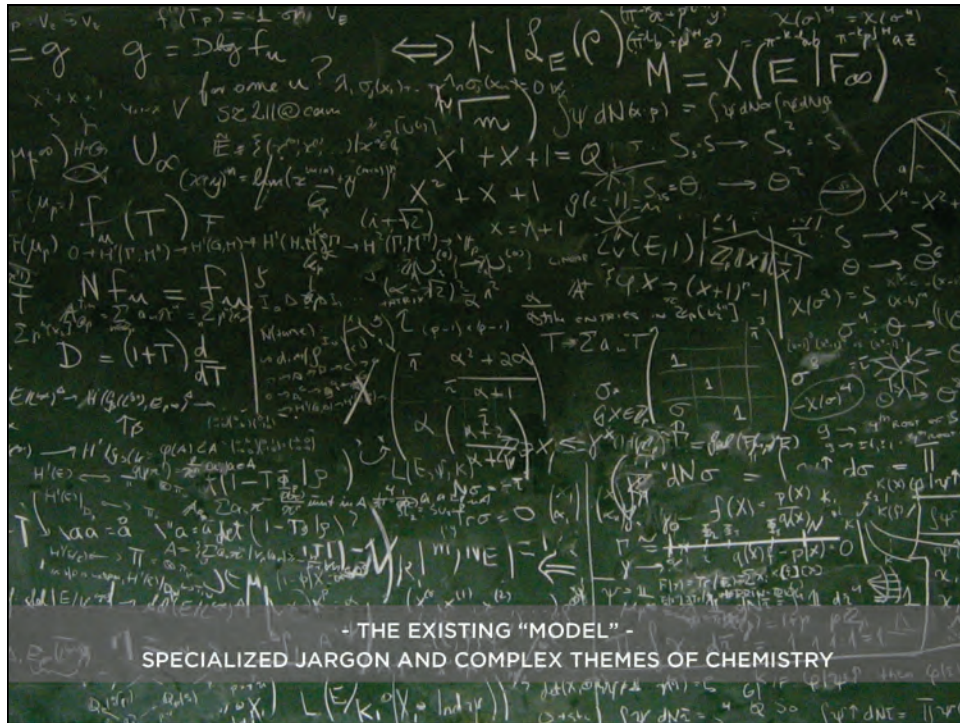
- BUCKMINSTER FULLER



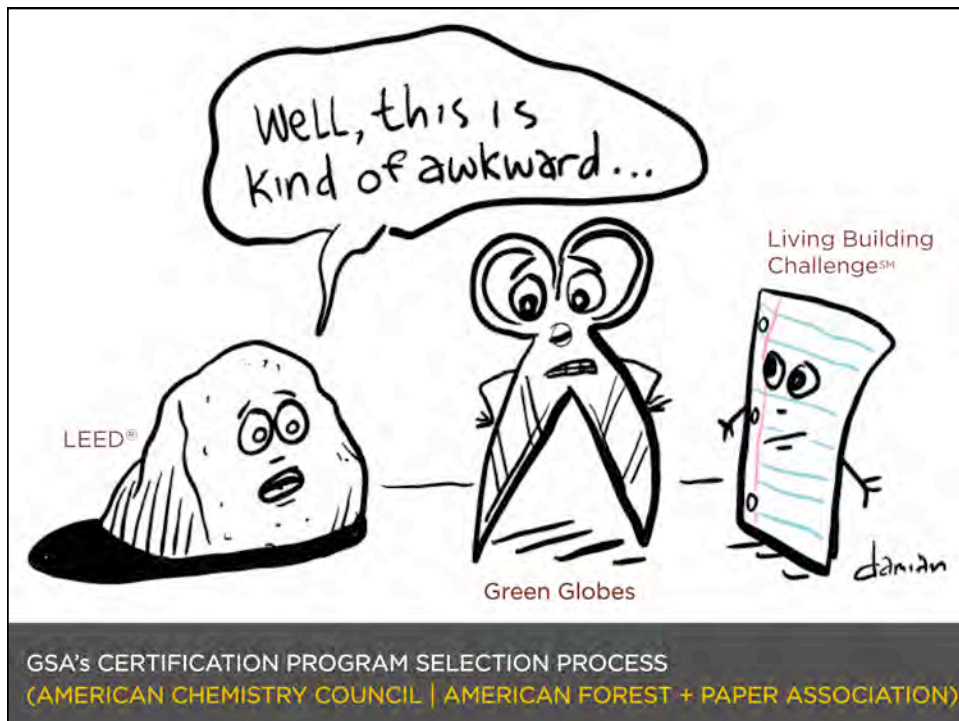
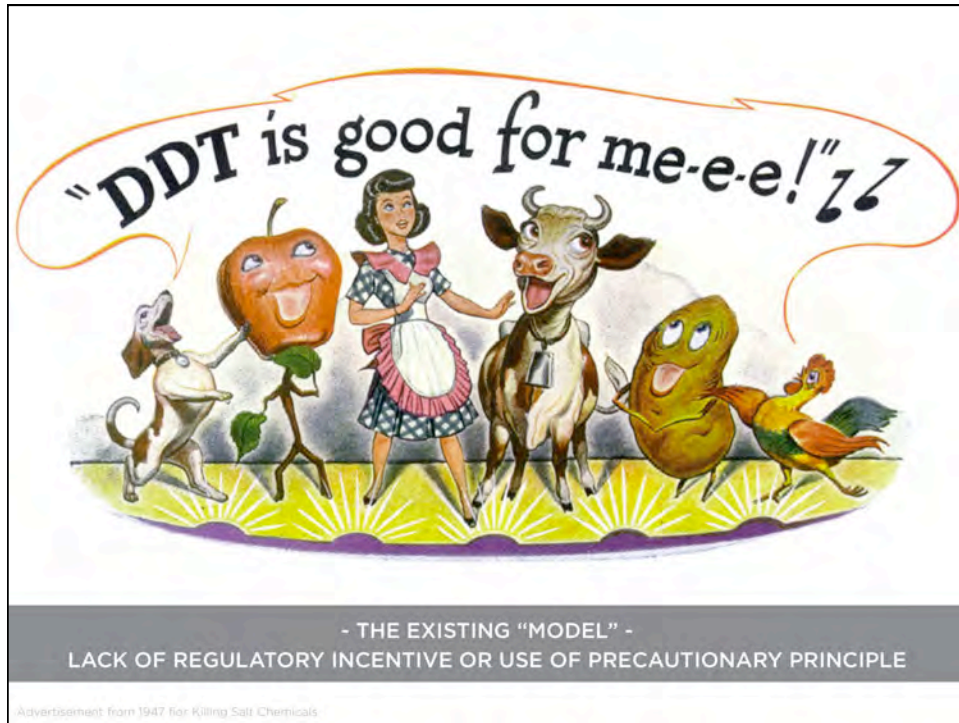















AMERICAN  
HIGH-PERFORMANCE  
BUILDINGS COALITION

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## ABOUT AHPBC

The coalition is: a leading industry voice that coordinates and engages representatives in the building and construction value chain in the development of reasonable performance based policies regarding green building standards development and implementation. [View coalition members.](#)

**Mission:** Support and promote green building codes, standards, rating systems and credits that are developed in conformance with full ANSI or ISO-type consensus processes, are data-driven, supported by science, and performance-based.


**Objectives:**

1. Bring diverse building and construction industry stakeholders together to execute the group's mission with respect to the development and implementation of green building standards.
2. Advocate for green building standards that align with the coalition's mission when considered for adoption by federal, state and local governments.
3. Become an effective voice in influencing development and voluntary adoption of green building standards through education, and outreach.

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### Latest Video



Hearing of the House Committee on Oversight & Government Reform: Continuing Oversight of Regulatory Impacts to Job Creation and Consumer Satisfaction by Paul Tegen

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[SITE MAP](#)

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## AHPBC 39 COALITION MEMBERS



The Adhesive and Sealant Council (ASC)  
 American Architectural Manufacturers Association (AAMA)  
 American Chemistry Council (ACC)  
 American Coal Ash Association (ACAA)  
 American Coatings Association (ACA)  
 American Fuel & Petrochemical Manufacturers (AFPM)  
 American Supply Association (ASA)  
 Asphalt Roofing Manufacturers Association (ARMA)  
 Center for Environmental Innovation in Roofing (CEIR)  
 U.S. Chamber of Commerce  
 Chemical Fabrics & Film Association (CFFA)  
 EPDM Roofing Association (ERA)  
 EPS Industry Alliance (EPS-IA)  
 Extruded Polystyrene Foam Association (XPSA)  
 Flexible Vinyl Alliance (FVA)  
 Hearth, Patio & Barbecue Association (HPBA)  
 Industrial Minerals Association – North America (IMA-NA)  
 International Sign Association (ISA)  
 Metal Construction Association (MCA)  
 National Association of Manufacturers (NAM)  
 National Hispanic Landscape Alliance (NHLA)  
 National Lumber and Building Material Dealers Association (NLBMDA)  
 National Roofing Contractors Association (NRCA)  
 Pavement Coatings Technology Council (PCTC)  
 Plastic Pipe & Fittings Association (PPFA)  
 Polyisocyanurate Insulation Manufacturers Association (PIMA)  
 Resilient Floor Covering Institute (RFCI)  
 Roof Coatings Manufacturers Association (RCMA)  
 Single Ply Roofing Industry (SPRI)  
 Society of Chemical Manufacturers & Affiliates (SOCMA)  
 Society of Plastics Industry (SPI)  
 Southern Forest Products Association (SFPA)  
 Spray Polyurethane Foam Alliance (SPFA)  
 Structural Insulated Panel Association (SIPA)  
 Treated Wood Council (TWC)  
 Vinyl Building Council (VBC)  
 Vinyl Institute (VI)  
 Vinyl Siding Institute (VSI)  
 Window & Door Manufacturers Association (WDMA)



## GREENWASH

*don't take everything at face value!*

(gren'wosh') – verb: the act of misleading purchasers regarding the environmental practices of a company or the environmental benefits of a product or service.







## 01: SIN OF THE HIDDEN TRADE-OFF

Photo: Alex Webb for National Geographic <http://ngm.nationalgeographic.com/ngm/0701/feature1/gallery5.html>

**folders**

letter size 3 tab positions manila

*1/3 cut tab size*  
scored bottom expands to  $\frac{3}{4}$  inch

minimum 30% post-consumer content

11  $\frac{5}{8}$  in x 9  $\frac{1}{2}$  in  
(29.5 cm x 24.1 cm)

Item 610-838

## 02: SIN OF NO PROOF

### 03: SIN OF VAGUENESS

#### ECO-SOLVENT INKS:

"Ink that is adhered to a substrate by a less aggressive or milder solvent. The inks often are referred to as "eco" because they generally are more economical than regular solvent inks. **(There has been much confusion in the industry that these inks are more environmentally friendly, but they may not be.)**"



From Specialty Graphic Imaging Association  
 Feature Article: Digital Ink System Choices (SGIA.org)

...if all the new ECO-branded products filed in 2007 actually came to market, an **ECO CITIZEN** could buy an **ECOHOUSE** in **ECOTOWN** from an **ECO REALTOR**. Clad in **ECO STUCCO** and topped with an **ECOROOF**, the house would be equipped with an **ECO HEATER**, **ECO HANGERS** in the **ECO CLOSET**, an **ECO JOHN** and **ECO SHOWER** (accompanied by **ECO TOWELS**), and an **ECO RUG** on the floor. You could rest your head on your **ECOSOFT ECO PILLOW** and get an **ECO-SLEEP** in your **ECOSNUG** bed under an **ECO BLANKET**, with **ECO LINENS** made of **ECO FLANNEL** on your **ECOMATTRESS**. Next to your backyard **ECO POOL**, you could mow your **ECO LAWN** with an **ECOMOWER**, and water your **ECO PLANTS** and **ECO FLOWERS** with an **ECO HOSE**. Your **ECO BABY** could play with **ECO DOLLS**, while you sent your **ECO TOTS** off to **ECO CHILDCARE** with an **ECO LUNCH**, including an **ECO APPLE**, **ECOMILK**, and **ECO YUMMY** snacks. Your **ECODUDE** teenager would wear **ECO THREADS** made of **ECO DENIM** and **ECO DOWN** as he rode his **ECOBIKE** to **ECOSCHOOL**. On a big night out, you could put on your **ECOUTURE**, your **ECO JEWELRY**, **ECO-SEXY** cosmetics, and **ECO CHIC** perfume, go partying at the **ECOLOUNGE** – and perhaps be stalked by **ECORAZZI**. On the weekend you could go fishing for **ECOSALMON**, get some **ECOLIFECOACHING**, or play **ECO GOLF** (but don't forget your **ECO-BRELLA** if it's raining). Or you could pack your **ECOBAGS** and fly an **ECO AIRLINE** through the **ECO-SKIES** to an **ECOSAFARI**. Perhaps you'd just relax with a cup of **ECO-JOE** until you buy more **ECOGEAR** at the **ECO SHOPPE**. It would be the ideal **ECOLIFE** for an **ECOGEEK** in an **ECOTOPIA** – until you were laid to rest in an **ECOCOFFIN**.

## 04: SIN OF IRRELEVANCE

## PRODUCT CERTIFICATION:

Testing is typically not holistic,  
but but only a single attribute.

This product has been GREENGUARD Indoor Air Quality Certified® by the GREENGUARD Environmental Institute under the GREENGUARD Standard for Low Emitting Products.

## Certification Details:

Certification No:	F10Tb95312-4
Certification Status:	Certified
Certification Period(s):	12/2005- 12/2007
Certification Restrictions:	No wood finish options




[PRODUCTS](#)
[A REFRESHED COMMITMENT](#)
[MAJOR LEAGUE BASEBALL](#)
[PURE WATER](#)
[SKIN CARE](#)

[Find us on Facebook](#)

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 AQUAFINA, THE AQUAFINA LOGO AND ECO-FINA BOTTLE ARE TRADEMARKS OF PEPSICO, INC.

05: SIN OF LESSER OF TWO EVILS





**EDEN**  
COLLECTION

**LG's Latest Secret Revealed.**

The Eden Collection is created from a minimum of 12% pre-consumer recycled material and certified for recycled content by the Scientific Certification Systems (SCS). Use of Eden in your designs will earn credits towards LEED certification in the categories of Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality. Bonus credits are also available for Process and Design Innovation. For your new projects, think the greenest in the garden.


When we go green, we go all the way.

[Download LG Eden brochure](#)

COCOA IVY HONEYSUCKLE JUNIPER JASMINE LEMONBRASS

LG LG HI-MACS  
Acrylic Solid Surface  
The secret's in the surface.

06: SIN OF FIBBING



NewGrass® is 100% eco-friendly ... green in every sense of the word in today's changing world.

NewGrass® believes that being environmentally conscious means more than conserving water. It means being 100 percent eco-friendly ... in our products and in our corporate responsibilities.

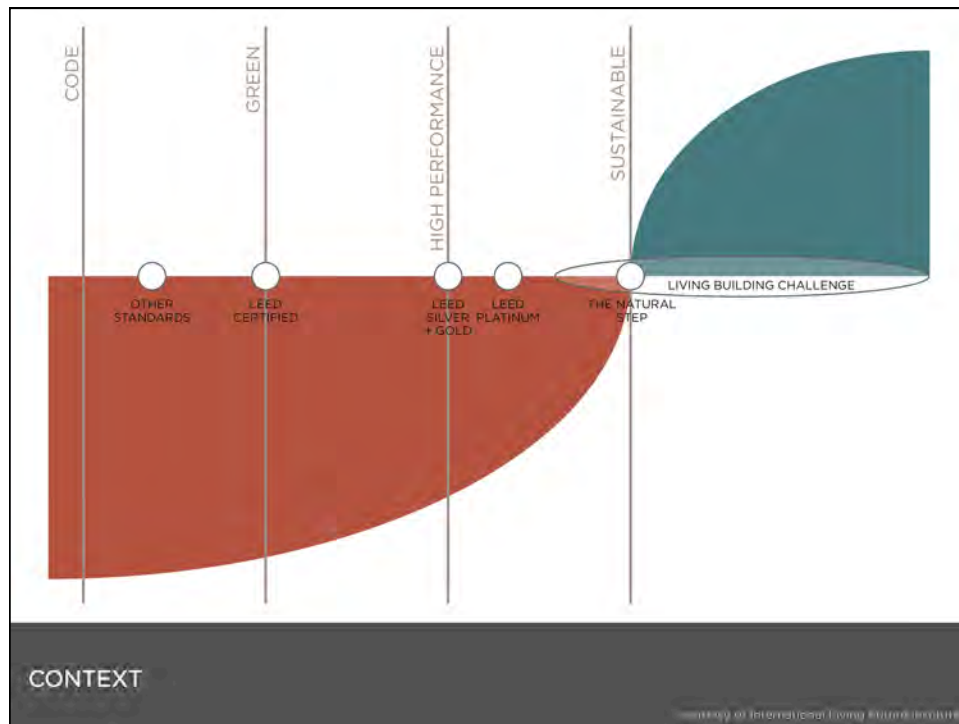
**NewGrass® Takes Being Green to a New Level**

NewGrass® is dedicated to being 100% eco-friendly – from the way our products are manufactured to the way they are recycled many years later.

**Made with Renewable and Recycled Resources; Totally Recyclable**

**100% ECO-FRIENDLY CERTIFIED**

07: SIN OF WORSHIPPING FALSE LABELS



In order for a society to be sustainable, nature's functions and diversity are not systematically subject to:

- 1** ... increasing concentrations of substances extracted from the earth's crust;
- 2** ... increasing concentrations of substances produced by society;
- 3** ... impoverished by physical displacement, over-harvesting, or other forms of ecosystem manipulation;
- 4** In a sustainable society, people are not subject to conditions that systematically undermine their capacity to meet their needs.

SHIFTING OUR MINDSET  
THE NATURAL STEP'S FOUR SYSTEM CONDITIONS

## SHIFTING OUR MINDSET

### TAKE

Can the earth replace what I take?

### MAKE

Am I poisoning soil, water or air?

### RESPECT

Do I respect the biodiversity of flora and fauna?

### CHOOSE

Are the choices I make fair and equitable?

definition courtesy of SERA Architects



## LEED® BD+C RATING SYSTEM

6<sup>TH</sup> PUBLIC COMMENT PERIOD  
OPEN THROUGH MARCH 31<sup>ST</sup>

<http://new.usgbc.org/leed/v4>

APRIL:  
CONSENSUS BODY OPT-IN

SUMMER:  
BALLOT PERIOD



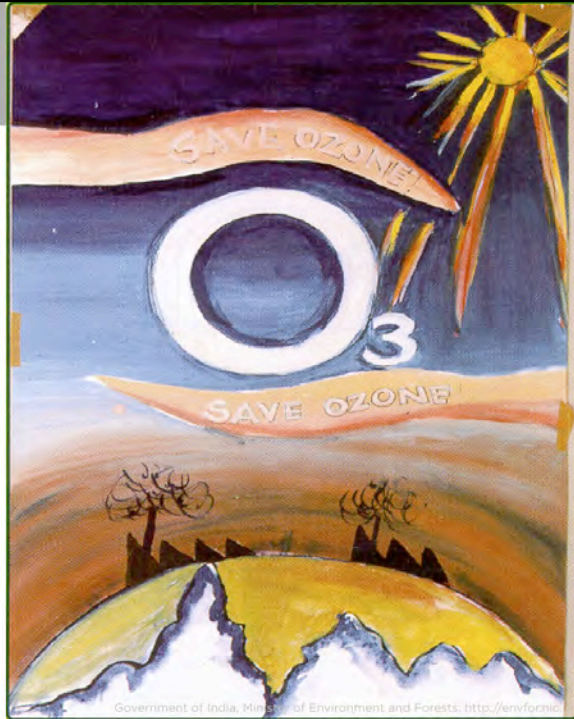


EAp4/c6  
REFRIGERANT MANAGEMENT  
UP TO 1 POINT

WHY?

- Depletes ozone in upper atmosphere. Also reduces capability for stratosphere to absorb UV radiation.
- Compromises human immune system, can contribute to skin cancer.
- Impacts lifecycles of plants and wildlife.

*where to track in LEED:*  
refrigerants (HVAC+R)  
fire suppressant systems



WEp2/c2  
INDOOR WATER USE  
REDUCTION  
UP TO 6 POINTS

WHY?

- treat water a precious resource.

*where to track in LEED:*  
water closets  
urinals  
sink faucets  
showerhead  
clothes washers  
dishwashers  
cooling towers



MRC1 OPTION 3  
BUILDING LIFE-CYCLE IMPACT  
REDUCTION: MATERIAL REUSE  
UP TO 4 POINTS

WHY?

- Reduces embodied energy of building.
- Eliminates need for new products.
- Adds character (history tells a story).
- Reduces waste stream impacts.
- Can reduce first costs of construction.
- Supports local small businesses.

*where to track in LEED:*  
reused building materials from  
on or off site



MRC1 OPTION 4  
BUILDING LIFE-CYCLE IMPACT  
REDUCTION: WHOLE BUILDING  
3 POINTS

WHY?

- Reduce environmental impacts by reducing overall material use. (ISO 14044)

*where to track in LEED:*  
[choose 3 - 10% reduction, minimum]  
global warming potential \*  
depletion of ozone layer  
acidification  
eutrophication  
formation of tropospheric ozone  
depletion of nonrenewable  
energy resources



MRc2  
PRODUCT DISCLOSURE +  
OPTIMIZATION: EPD's  
UP TO 2 POINTS

WHY?

- Encourages transparency of information
- Allows consumers to support manufacturers that account for environmental, economic and social performance factors.

*where to track in LEED:*  
[20 products, minimum]



MRc3  
PRODUCT DISCLOSURE +  
OPTIMIZATION: RAW MAT'L'S  
UP TO 2 POINTS

WHY?

- environmentally, economically, socially preferable impacts

*where to track in LEED:*  
[20 products, minimum]  
company with demonstrated CSR  
Bio-based materials  
Wood products  
Recycled Content





MRe4  
**PRODUCT DISCLOSURE +  
 OPTIMIZATION: INGREDIENTS**  
 UP TO 2 POINTS

**WHY?**

- encourage manufacturer transparency to minimize the use of harmful substances and chemicals of concern.
- reward companies that lead the way.

*where to track in LEED:*

[20 products, minimum]

Health Product Declaration

GreenScreen

Cradle to Cradle Certification



EQc2  
**LOW EMITTING INTERIORS**  
 UP TO 3 POINTS

**WHY?**

- VOC's offgas at room temperature.
- Negatively impact human health, agriculture, forests, ecosystems...

*where to track in LEED:*

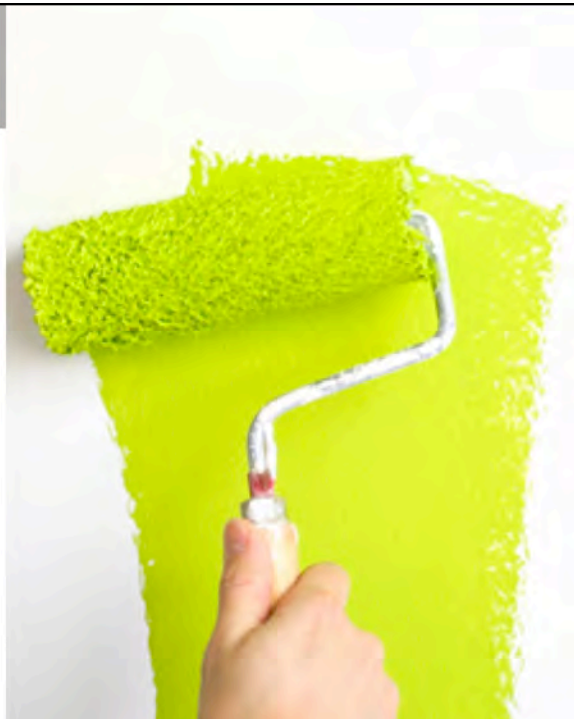
adhesives and sealants

paints and coatings

flooring

composite wood

ceilings, walls, insulation



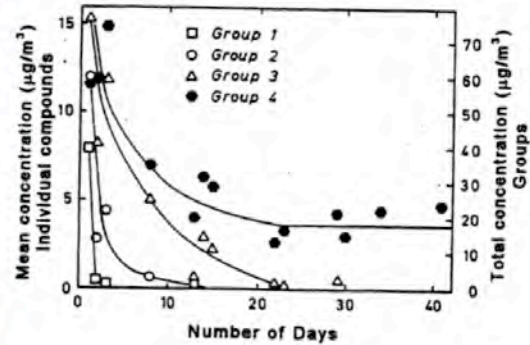
EQc4 OPTION 2  
INDOOR AIR QUALITY  
ASSESSMENT: TESTING  
UP TO 2 POINTS

Example:

Materials extracted from 7-year old preschool with Sick Building Syndrome tested in climate chamber (filtered air exchange rate of 0.5 ACH)

where to track in LEED:

formaldehyde  
particulates (50 micrograms/m<sup>3</sup>)  
ozone  
TVOCs  
target chemicals (per California Department of Public Health)  
carbon monoxide



## VOLATILE ORGANIC COMPOUNDS

A category of thousands of different chemicals that evaporate readily into the air.

Exposure has impacts:

- Can cause eye, nose, and throat irritation; headaches, loss of coordination, memory impairment, and nausea, damage to liver, kidney, and central nervous system.
- Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans.

ADDITIONAL  
NEUROTOXIC  
EFFECT

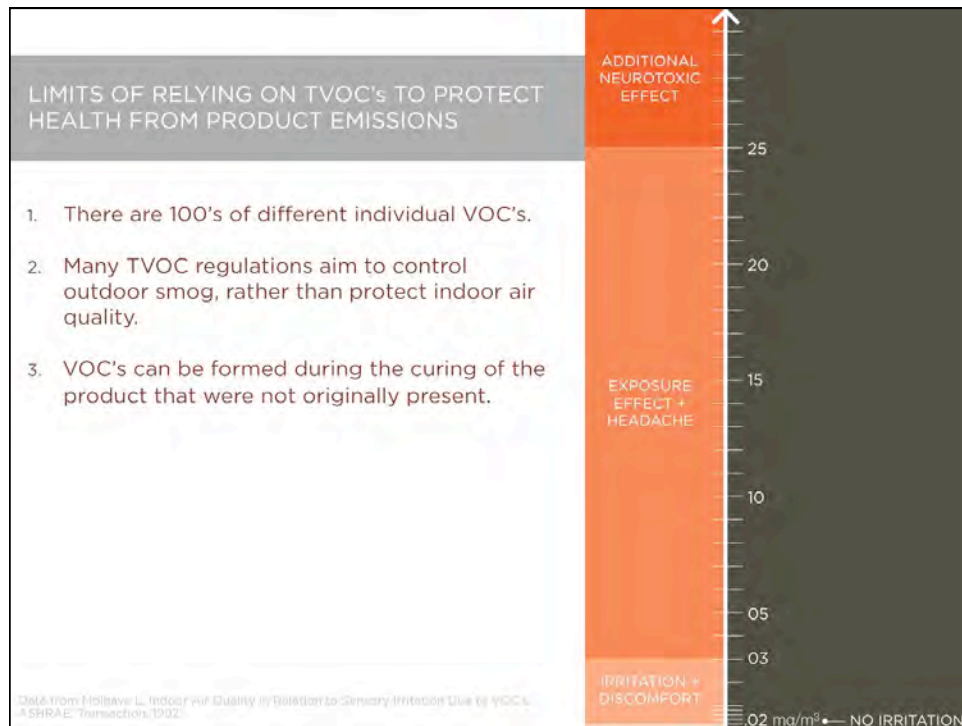
EXPOSURE  
EFFECT +  
HEADACHE

IRRITATION +  
DISCOMFORT

25  
20  
15  
10  
05  
03

0.2 mg/m³ ← NO IRRITATION

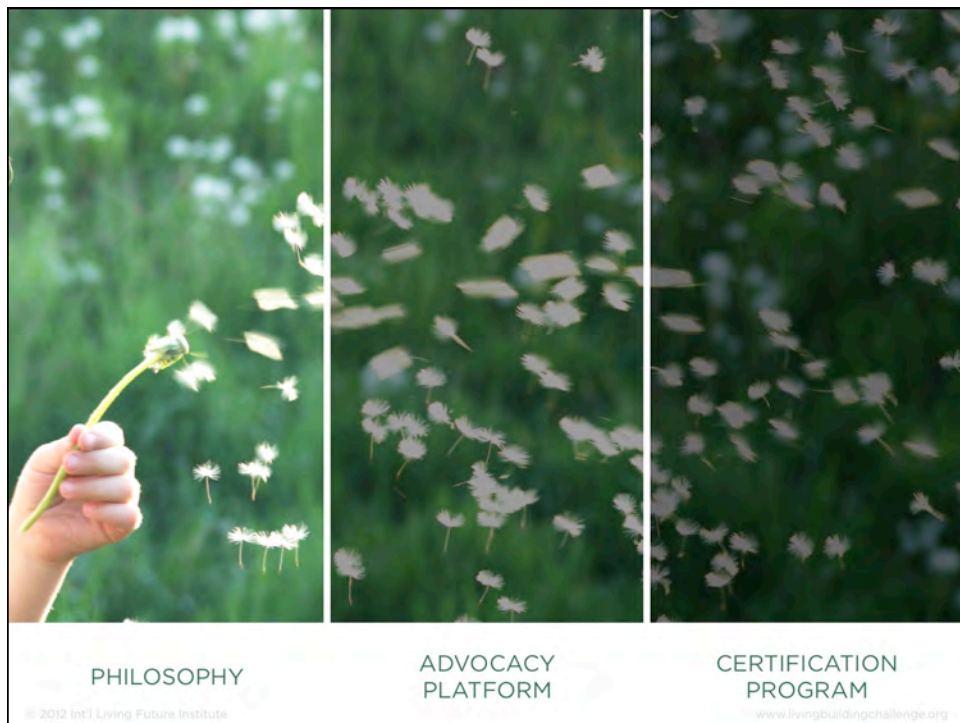
Data from Hollave L. Indoor Air Quality in Relation to Sensory Irritation Due to VOCs. ASHRAE Transactions, 1992.



The truth is rarely pure,  
and never simple.

- OSCAR WILDE







TWENTY IMPERATIVES

© 2012 FCI Living Future Institute

LIMITS TO GROWTH  
URBAN AGRICULTURE  
HABITAT EXCHANGE  
CAR FREE LIVING

NET ZERO WATER  
ECOLOGICAL WATER FLOW

NET ZERO ENERGY

CIVILIZED ENVIRONMENT  
HEALTHY AIR  
BIOPHILIA

RED LIST  
EMBODIED CARBON FOOTPRINT  
RESPONSIBLE INDUSTRY  
APPROPRIATE SOURCING  
CONSERVATION + REUSE

HUMAN SCALE + HUMANE PLACES  
DEMOCRACY+ SOCIAL JUSTICE  
RIGHTS TO NATURE

BEAUTY + SPIRIT  
INSPIRATION + EDUCATION

www.fci.org



A CONDITIONED REALITY

## 09

## HEALTHY AIR



To promote good indoor air quality, a Renovation, Building, and building(s) completed as part of a Neighborhood project must comply with best practices.

Conduct air quality testing at pre-occupancy and after 9 months of occupancy to measure levels of Respirable Suspended Particulates (RSP) and Total Volatile Organic Compounds (TVOC).

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## 09 HEALTHY AIR

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- Entryways must have an external dirt track-in system and an internal dirt track-in system contained within a separate entry space.
- All kitchens, bathrooms, copy rooms, janitorial closets and chemical storage spaces must be separately ventilated and exhaust directly to outside air.
- Ventilation rates must be designed to comply with ASHRAE 62 and equipment must be installed to monitor levels of carbon dioxide ( $\text{CO}_2$ ), temperature and humidity.
- Smoking must be prohibited within the project boundary.

Guideline for maximums in testing:

$\text{CO}_2$  1000 ppm or 500+ outdoor level (L3-L6)

CO 9 ppm or 2+ outdoor level (L3-L6)

RSP 30  $\mu\text{g}/\text{m}^3$  by mass measurement or 900,000  $\text{f}^3$  by laser particle counter

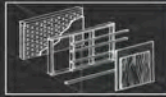
TVOC 500  $\mu\text{g}/\text{m}^3$  micrograms per cubic meter

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## 11

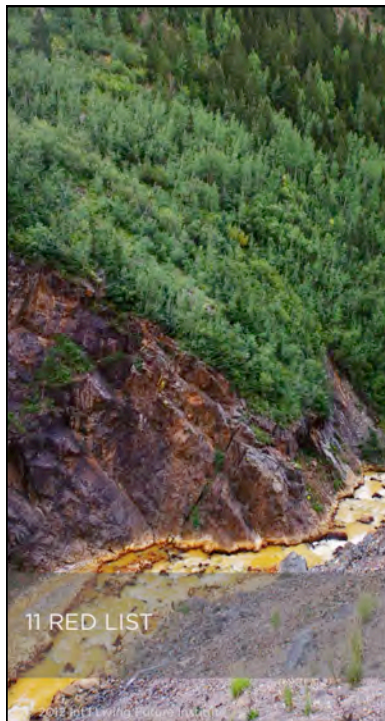
## RED LIST



The project cannot contain the identified worst-in-class materials or chemicals, which include carcinogens, persistent organic pollutants, bioaccumulative toxins, and endocrine disruptors.

© 2013 by The University of California

www.sustainablechallenge.com

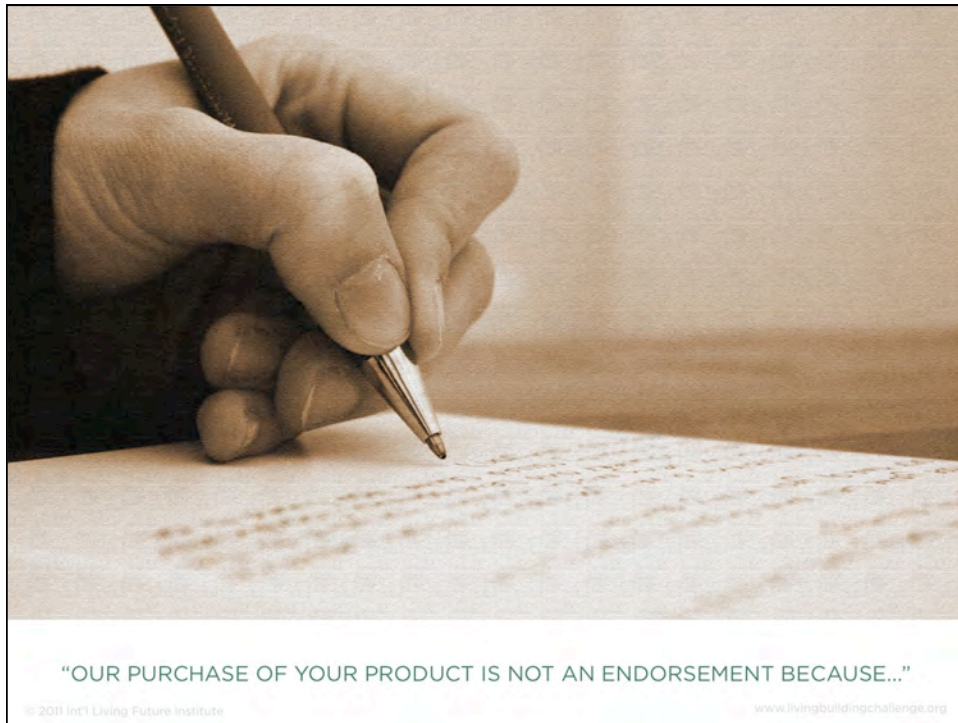


## 11 RED LIST

Asbestos  
Cadmium  
Chlorinated Polyethylene and Chlorosulfonated Polyethylene  
Chlorofluorocarbons (CFCs)  
Chloroprene (Neoprene)  
Formaldehyde (added)  
Halogenated Flame Retardants  
Hydrochlorofluorocarbons (HCFCs)  
Lead (added)  
Mercury  
Petrochemical Fertilizers and Pesticides  
Phthalates  
Polyvinyl Chloride (PVC)  
Wood treatments containing Creosote, Arsenic or Pentachlorophenol

© 2013 by The University of California

www.sustainablechallenge.com



**Have you seen this human carcinogen?**

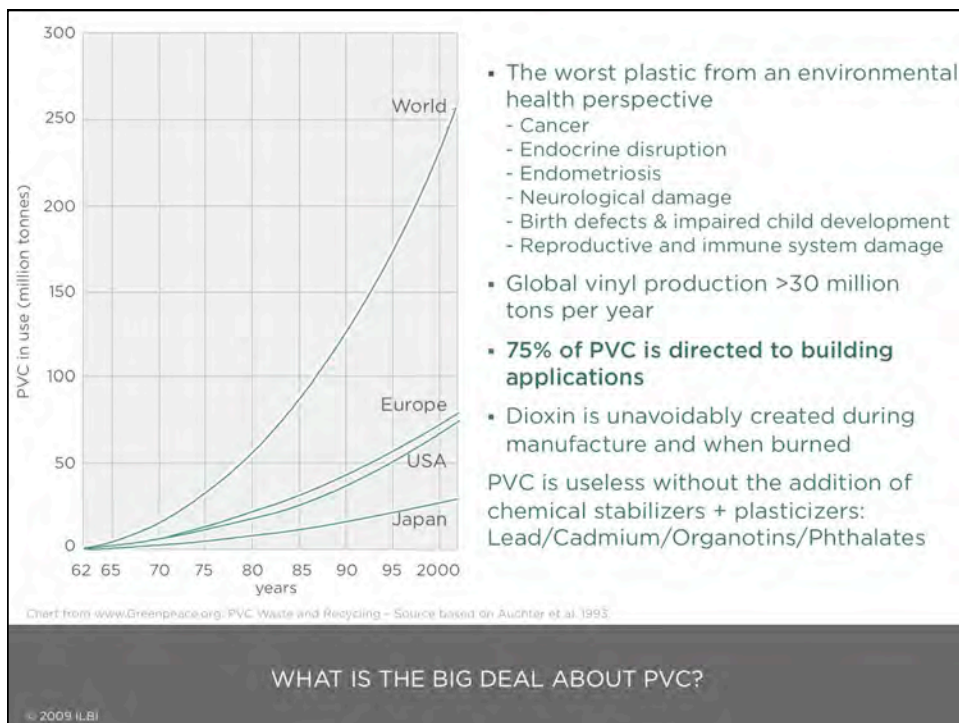
**Given Name:**  
**FORMALDEHYDE**

**Known Alias(es):**  
 FORMALIN  
 METHANAL  
 METHYL ALDEHYDE  
 METHYLENE OXIDE  
 MORBICID ACID  
 OXYMETHYLENE

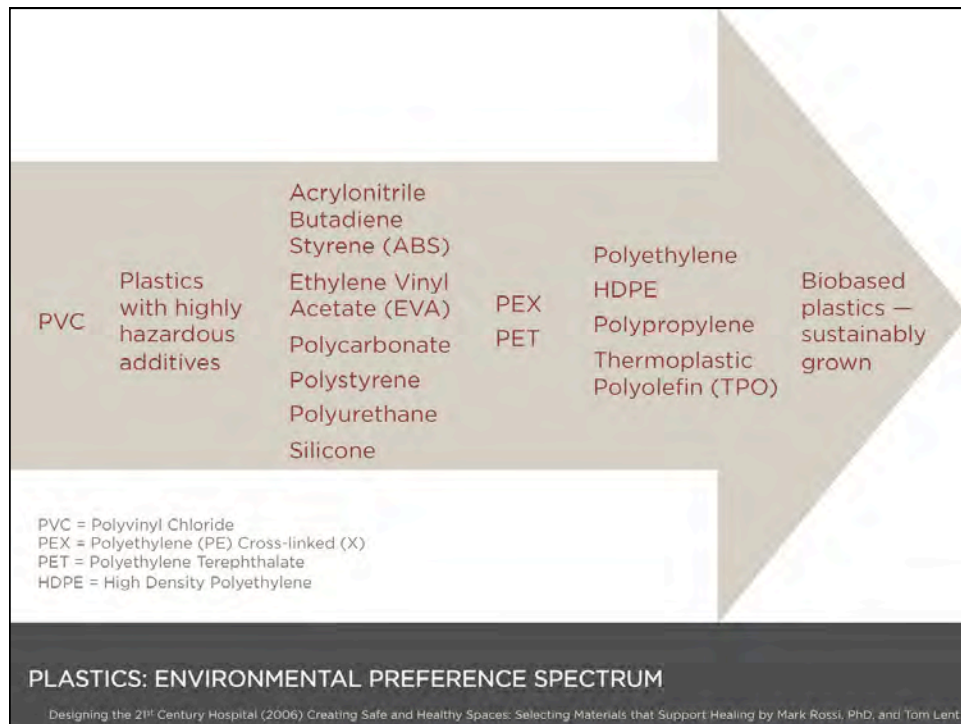
**Last seen in:**  
 Composite woods  
 Electronics  
 Insulation  
 Paints  
 Textiles  
 Carpets  
 Countertops  
 Ceiling tiles  
 Resins, Coatings, Glues...

© 2009 ILBI









## FLOTENDER GREYWATER FILTRATION

*We recently learned about a company in Woodinville, WA that has started manufacturing a greywater reuse system. After some communications with them about the Red List (in particular, PVC) they have agreed to make changes to some of their components to replace/eliminate PVC.*

*Though they had not heard about the Living Building Challenge prior to our request, after seeing the standard, they replied "very cool" and within a day, **they decided to make changes to their product to comply with the Red List!***

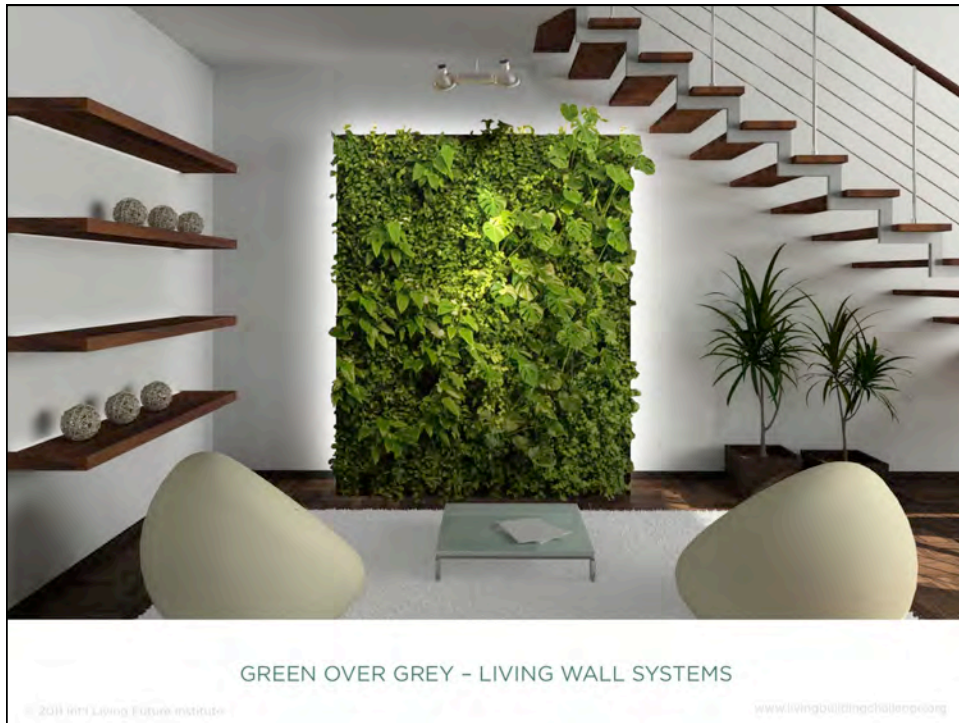
© 2011 Int'l Living Future Institute



## BUILDING ENVELOPE INNOVATIONS - WET FLASH (SEALANT)

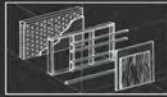
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## 12

EMBODIED  
CARBON  
FOOTPRINT

The project must account for the total footprint of embodied carbon (tCO<sub>2</sub>e) from its construction through a one-time carbon offset tied to the project boundary.

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12 EMBODIED CARBON  
FOOTPRINT

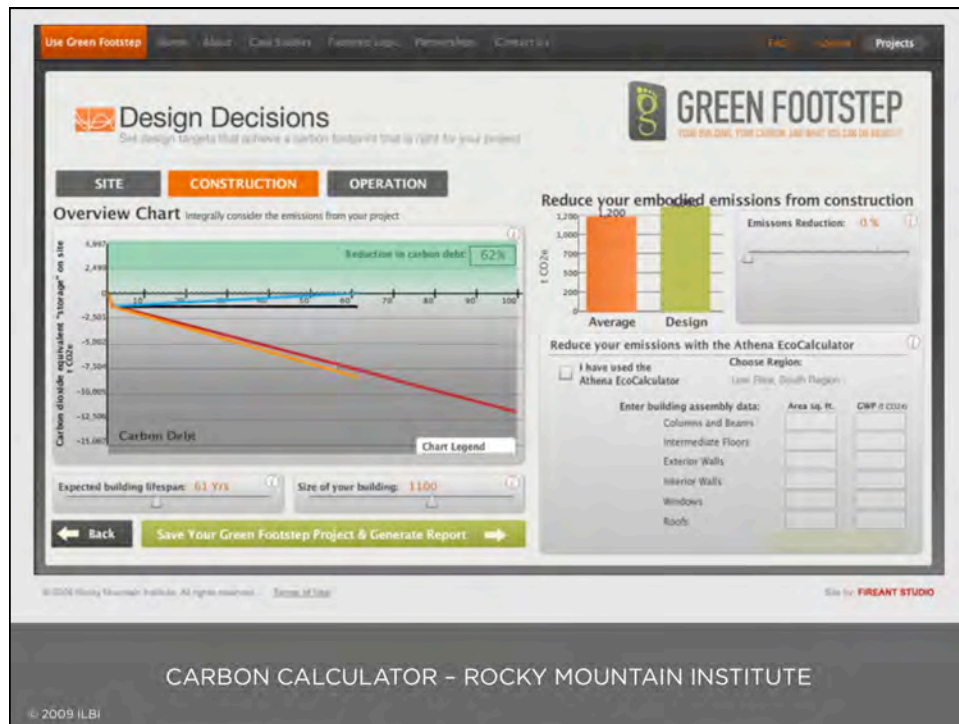
© 2012 Int'l Living Future Institute

Offsets may only be from renewable energy projects that ensure real, verifiable, permanent carbon reductions.

Also consider:

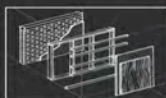
- Meet/exceed criteria of: Gold Standard, VCS, Climate Action Reserve, Green-e Climate Protocol
- Green-e certified (3rd party verification)
- Additionality
- Forecasted performance
- Unique Recipients
- Transparency / Education to buyers
- Social co-benefits
- Minimal environmental impacts

[www.livingbuildingchallenge.org](http://www.livingbuildingchallenge.org)



13

### RESPONSIBLE INDUSTRY

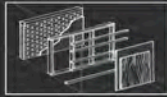


The project must advocate for the creation and adoption of third-party certified standards for sustainable resource extraction and fair labor practices. Applicable raw materials include stone and rock, metal, minerals and timber.





## 14

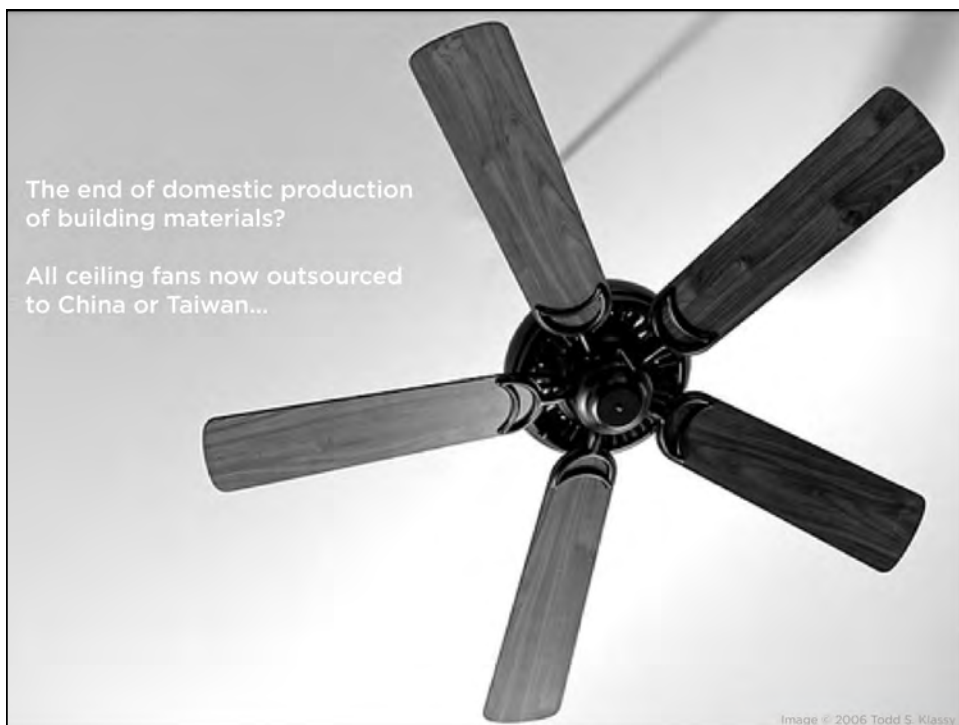
APPROPRIATE  
SOURCING

The project must incorporate place-based solutions and contribute to the expansion of a regional economy rooted in sustainable practices, products and services.

## 14 APPROPRIATE SOURCING

Source locations for materials and services must adhere to the following restrictions:

ZONE	MAX DISTANCE	MATERIALS/SERVICES	MASTERFORMAT CLASSIFICATION
7	20,004 km	Ideas	-
6	15,000 km	Renewable Technologies	Divisions: 42, 48
5	5,000 km	Assemblies that actively contribute to project performance + adaptable reuse once installed	Divisions: 08 (exterior), 11, 14, 22, 23, 26, 33, 44 Sections: 07 50 00, 10 21 23, 10 22 00, 10 70 00, 44 40 00
4	2,500 km	Consultant Travel	-
3	2,000 km	Light or low-density materials	Sections: 07 31 00, 07 33 00, 07 40 00, 09 50 00, 09 60 00
2	1,000 km	Medium weight or density materials	Divisions: 06, 08 (interior) Sections: 07 32 00, 09 20 00, 09 30 00, 12 30 00
1	500 km	Heavy or high-density materials	Divisions: 03, 04, 05, 31, 32





15

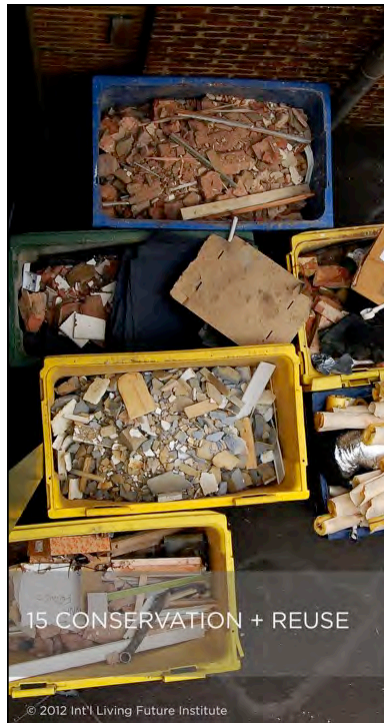
CONSERVATION  
+ REUSE

The project team must strive to reduce or eliminate the production of waste during design, construction, operation, and end of life in order to conserve natural resources.

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[www.livingbuildingchallenge.org](http://www.livingbuildingchallenge.org)





The project team must create a Material Conservation Management Plan that explains how the project optimizes materials in each of the following phases:

- Design Phase
- Construction Phase
- Operation Phase
- End of Life Phase

During construction, teams must divert wasted materials from landfills:

Material	Minimum Diverted/Weight
Metals	95 %
Paper and Cardboard	95 %
Soil, and biomass	100 %
Rigid Foam, carpet & insulation	90 %
All others - combined weighted average	80 %

Hazardous materials in demolition waste are exempt from percentage calculations.

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## 10 PRINCIPLES OF DESIGN FOR DISASSEMBLY

1. Document a deconstruction plan
2. Use the Precautionary Principle
3. Design accessible connections
4. Eliminate chemical connections
5. Use bolted/screwed/nailed connections
6. Separate M-E-P systems
7. Design to the worker & labor
8. Simplicity of structure and form
9. Interchangeability (modularity)
10. Safe Deconstruction

**DfD**  
Design for Disassembly  
in the built environment




by Brad Guy and Nicholas Ciaramboli  
for City of Seattle, King County, WA,  
and Resource Ventures, Inc.12

FOR 1,000 kg PRIMARY ALUMINUM (2005):	
FRESH WATER	28.6 m <sup>3</sup>
SEA WATER	18.0 m <sup>3</sup>
COAL	173 kg
DIESEL OIL	9.7 kg
HEAVY OIL	207 kg
NATURAL GAS	277 m <sup>3</sup>
ELECTRICITY	15,680 kwh
CO <sub>2</sub> e	10.5 tonnes
BAUXITE	5,268 kg

Bauxite is -8% of the earth's crust by weight  
 -100 billion kg of bauxite is mined annually  
 Main producers: Australia, Guinea, Jamaica, Brazil, China, India

Data from Life Cycle Assessment of Aluminum, International Aluminum Institute © 2007

### ANOTHER PERSPECTIVE ON CONSERVATION + REUSE

RECYCLED ALUMINUM ENGINE BLOCK	VIRGIN ALUMINUM CHAIR	RECYCLED ALUMINUM CHAIR	FSC-CERTIFIED WOOD CHAIR	RECYCLED PLASTIC CHAIR
--------------------------------	-----------------------	-------------------------	--------------------------	------------------------

### WHAT ARE YOU COMPARING?

Image courtesy of KIMBERLY CLARK









start with **people** and all  
else follows.

the default is never the  
greenest, **safest** option.

## IF THEY WON'T TELL YOU WHAT'S IN IT, YOU PROBABLY DON'T WANT WHAT'S IN IT.

managing data is difficult  
and we are not doing a  
good job.

**consult your nose** -- if it  
stinks, don't use it.

use both **carrots** (rewards,  
incentives, trips to Vegas?) and  
**sticks** (Red Lists?) to get exposure.

.....  
MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

why not the '**heal us**' list?

what are the **unintended  
consequences** of Red Lists?

## JUST BECAUSE ALMOST ANYTHING CAN KILL YOU DOESN'T MEAN THAT BUILDING PRODUCTS SHOULD.

**innovation** is the opportunity  
for manufacturers to take more  
market share.

there is a product we are using  
today that we don't know is making  
us sick.

.....  
MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'



host a 'regenerative  
manufacturer' **competition**  
with **rewards**.

need for an information **filter**  
and how to compare material  
**values** (e.g., toxicity vs habitat)

## AVOID MATERIALS THAT ARE PRETENDING TO BE SOMETHING THEY ARE NOT.

Include the manufacturer  
in design and integrated  
team **partnership** (us + us)

standards that are **agile**  
and **robust**.

put PCRs and EPDs in certification programs,  
with **toxicity information** included.

---

MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

If you can't **grow it**, then  
you shouldn't use it.

**embrace decay** +  
transformation.

## USE CARBOHYDRATE-BASED MATERIALS WHEN YOU CAN.

We should be able to eat  
buildings.

nature is the teacher. **biomimicry for content**,  
not just function.

---

MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

why are healthy products  
"special"?

make it **personal**: value health  
more than CO<sub>2</sub> and energy.

## QUESTION MATERIALS THAT MAKE HEALTH CLAIMS.

can we make buildings  
**biologically active**?

use the **precautionary  
principle**.

bring this discussion into design **education**

.....  
MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

can your company switch  
to product as **service**?

revise the rule to read:  
"**take only what you need.**"

~~PAY MORE, USE LESS.~~

**closed-loop** economy

using more should  
contribute to the **greater  
good**.

will saying "no" get us where we want to go?

.....  
MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

healthy + regenerative is  
**profitable.**

do we have to choose between  
lead time and quality/handmade/  
supporting local companies?

## IF IT IS CHEAP, IT PROBABLY HAS HIDDEN (EXTERNALIZED) COSTS.

economy puts profits over  
"value to the world"

what you buy gets produced.

create incentives, recognition and **celebration**  
for healthy products.

.....  
MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

how can we avoid the  
**toxicity of technology?**

ask what we are trying to  
accomplish with materials in  
the first place.

## REGARD "SPACE AGE" MATERIALS WITH SKEPTICISM.

what will we wear in the  
future?

move forward by **looking back.**

what if all new manufacturing is "dead"?

.....  
MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'



can we really do **better**  
than nature?

**less processed** is better than  
more processed.

## USE MATERIALS MADE WITH SUBSTANCES YOU CAN IMAGINE IN THEIR RAW OR NATURAL STATE.

use things that can be  
repaired, not just replaced.  
(**don't support forced  
obsolescence**)

make it with your hands.

approach manufacturing as ecology: the  
interaction of biological + non-biological  
elements in systems process.

MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'

recycled content is not  
always better

create a culture of **"yes"**.

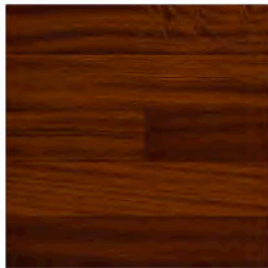
## QUESTION THE GENERATION OF HAZARDOUS WASTE INSTEAD OF WHERE TO USE IT IN YOUR PROJECT.

educate your family first...  
then your clients.

make it with your hands.

be open to moving **beyond "doing less bad"**.

MATERIAL RULES (2011) - INSPIRED BY MICHAEL POLLAN'S 'FOOD RULES'



CHERRY

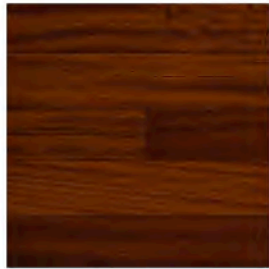


WALNUT



BAMBOO

WHICH PRODUCT IS GREEN?



CHERRY

- 100% FSC Certified
- Sourced from Brazil
- UF-free adhesives
- Shipped by barge/truck/rail



WALNUT

- FSC Certified Mixed Sources, Post-Industrial Recycled Content
- Sourced from exhausted orchards in California
- UF-free adhesives
- Shipped by barge/truck/rail



BAMBOO

- Rapidly Renewable
- Sourced from China  
Adhesive: Denmark  
Finish: Austria  
Mill Equipment: Europe  
Labor: China
- Option for UF-free adhesives
- Shipped by barge/truck/rail

WHICH PRODUCT IS GREEN?

Attribute	(importance)	product A	product B
Aesthetics	(10)	8	10
Durability	(7)	6	4
Regional	(6)	9	7
VOCs	(8)	6	6
CSR	(3)	7	2
No PVC	(5)	5	6

DO THE MATH.







Attribute	(importance)	product A	weighted score	product B	weighted score
Aesthetics	(10)	8	80	10	100
Durability	(7)	6	42	4	28
Regional	(6)	9	54	7	42
VOCs	(8)	6	48	6	48
CSR	(3)	7	21	2	6
No PVC	(5)	5	25	6	30
		270		254	


DO THE MATH.



ADDITIONAL RESOURCES


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NEWS	LEARN	CSI DIVISIONS	LEED CREDITS	PRODUCTS	PROJECTS	LIVE
<b>NEWS and ARTICLES</b> Current and archived material from <i>Environmental Building News</i>	<b>LEARN GREEN DESIGN</b> Explore a hierarchy of topics in green design and construction	<b>CSI DIVISIONS</b> The organizational standard for products and specifications	<b>LEED CREDITS</b> A system that defines the environmental performance of buildings	<b>GREEN PRODUCTS</b> Detailed product listings of environmentally preferable building products	<b>PROJECTS</b> Project case studies ranging from homes to large buildings	<div>  <b>LATEST NEWS</b> </div> <div> <b>Evaporative Coolers</b>            As water evaporates, it absorbs heat. Direct and indirect evaporative coolers use this property to cool homes efficiently.  <a href="#">Read entire article</a> </div> <div> <b>Green Building Products</b>            The 3rd edition of <i>Green Building Products</i> lists over 1,600 green products.  <a href="#">Buy your copy now!</a> </div> <div> <b>Free E-mail News Bulletin From BuildingGreen</b>            Twice a month, fresh news and green product briefs will arrive in your inbox. <a href="#">Sign up now!</a> </div>
<div>  </div> <b>Alternative Water Sources: Supply-Side Solutions for Green Buildings</b> Both the recent drought in the normally-wet Southeast and impending water shortages in the Southwest are a reminder that water efficiency should be a top priority for our buildings. <a href="#">Read full article...</a> <b>Sidebar:</b> <a href="#">A/C Condensate Calculator</a>						<div>  </div> <b>AIA/COTE Announces 2008 Top Ten Green Projects</b> The American Institute of Architects (AIA) Committee on the Environment (COTE) has announced its Top Ten Green Projects for 2008. <a href="#">Read full article and projects...</a> <b>LIVE:</b> <a href="#">A jury member discusses how the Top Ten were chosen...</a>
<b>BuildingGreen.com LIVE</b> Our internet feed, <i>BuildingGreen.com LIVE</i> , is updated frequently with real-time event coverage, reviews, and our editors' unvarnished opinion on the latest news from all over the green building world! Join the conversation: <ul style="list-style-type: none"> <li>• <a href="#">Next Week: LIVE from the AIA Convention</a> posted 05/07/2008</li> <li>• <a href="#">The Unconference</a> posted 05/06/2008</li> <li>• <a href="#">LIVE Contributor: Jennifer Atlee</a> posted 05/06/2008</li> </ul>						



Transforming the market for building materials  
 to advance the best environmental, health,  
 and social practices

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## HEALTHY BUILDING NETWORK

**Issues**

- MARKET TRANSFORMATION**
  - Overview
  - Health Care
  - Pharos Project
  - Healthy Homes
  - U.S. Green Building Council
- TARGET MATERIALS**
  - Overview
  - PVC Plastic
  - Pressure Treated Wood
  - Plastic Lumber
  - Formaldehyde
  - Biopolymers
- LIFE CYCLE ANALYSIS**
  - Overview
- FOUNDATIONS**
  - Environmental Justice

**Search**


**Target Materials: Overview**  
**Worst in Class Chemicals**  
 (PDF [factsheet](#) on healthy building materials and how to find them)  

All materials exist on an environmental impact continuum of varying positive and negative impacts on human health and the environment. A wide range of environmental health policies of local and national governments and international treaty have identified a set of chemicals as warranting priority efforts to eliminate due to their high toxicity and global impact.

HBN works in the building sector to move the industry away from materials that incorporate these high priority "worst in class" chemicals or lead to their release in the materials' life cycle toward alternatives that we understand to be safer.

At the top of the list are **Persistent Bioaccumulative Toxics (PBTs)**. PBTs do not break down readily from natural processes (persistent), accumulate in fatty tissues concentrating as they move up the food chain (bioaccumulative), and are generally highly toxic in small quantities, creating a toxic legacy that will haunt us for decades to come. Hence environmental health advocates prioritize substitution away from materials whose manufacture, use and disposal result in the release of PBTs into the environment. **Persistent Organic Pollutants (POPs)** are a priority subset of PBTs targeted by international treaty. Dioxins, furans and PCBs are the

**HEALTHY BUILDING NETWORK**  
 Achieving Environmental Health and Justice  
 Where We Work, Live, and Play



**HEALTHYBUILDING.NET**

# Declare.

**Product Name**  
**Manufacturer Name**  
City, State/Province, Country  
**Life Expectancy:** 000 YEARS  
**End of Life Options:** Recyclable (42%), Landfill

**Ingredients:**  
**Ingredient One** (Location, ST), **The Second Item** (Location, ST), **Next Ingredient** (Location, ST), **Living Building Challenge Red List**, **Different Part of the Product**, **Another Component**, **More Stuff**, **US EPA Chemical of Concern**, **Yet Another Item**, **Non-toxic Element**, **Piece of the whole**, **Component of Concoction**, **Third From The End**, **ECHA REACH Substance of Very High Concern**, **Last Ingredient**

XXX-0000    EXP: 12/2010  
ZONE 0  
00 00 00

INTERNATIONAL LIVING FUTURE INSTITUTE® www.livingbuildingchallenge.org

Intentionally simple in scope - focused on ingredients

Options: Take back program; Salvageable or reusable in its entirety; Recyclable (%); Landfill; Hazardous waste (%).

All constituent parts of a product, including trace elements, even if 'naturally occurring'.  
Color coded to communicate potential hazards

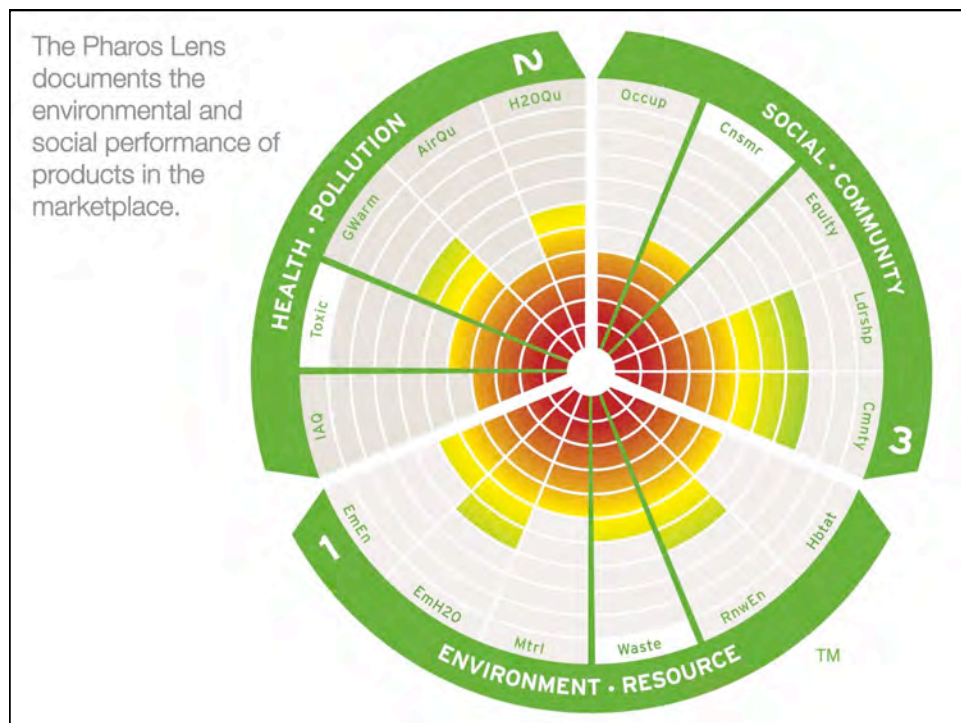
Declare Identifier for company + product, Valid for 12 months

Designated Zone per Appropriate Sourcing Imperative

CSI MasterFormat 2010 classification

SHOW YOUR TRUE COLORS

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Pharos

Pharos Project

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home > products > search results

products

Search Results

Click the product name to view the products full profile.  
Click any category to the right to sort by that category.

Acrorub binder

by BASF

Appeal Solid Vinyl Tile

by Flexco Floors

Azrock Asset Standard VCT

by Tarkett - Azrock

Commercial Flooring Vinyl Composition Tile

by Armstrong World Industries, Inc.

Contract Solid Vinyl Tile

by Flexco Floors

Cork Rubber Flooring (CRF)

by Zandur

CS Line (a/k/a LifeLine CS)

by Upofloor Oy/Global Market Partners, Inc.

Designers Choice Rubber Tile

by Roppe Corporation

Dimensions Rubber Tile

by Roppe Corporation

Distinct Designs Rubber Tile & Sheet

by Flexco Floors

ESD Control

by Roppe Corporation

Essentials Vinyl Composition Tiles

by Mannington Resilient Flooring

UseTox	MfrTox	EndTox	RwMTL	RwEng
1	4	—	1	1
1	1	—	1	1
5	3	—	1	3
5	1	—	1	1
1	1	—	1	1
6	4	—	5	1
6	6	—	1	1
5	1	—	1	1
5	1	—	1	2
5	1	—	1	1
5	1	—	1	1
5	3	—	1	1

Key

Scale is 1 to 10 with 10 as the highest score. Colors shift from Red to Yellow to Green as the score improves.

1

 Data provided by manufacturer and verified by Pharos team.

2

 Preliminary, pending further data and verification.

3

 Pharos-researched preliminary data (public). Manufacturer declined to participate.

Search Filters

Minimum Requirements

No Minimum  UseTox

No Minimum  MfrTox

No Minimum  EndTox

No Minimum  MTL

No Minimum  RvwEng

Attributes

☐ No Flame Retardants

☐ No Water/Stain Repellents

☐ No Antimicrobials

☐ No Nano Materials

No material ingredients worse than:

No lifecycle chemicals worse than:

Apply Filters

remove filter

Pharos

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home > products > product profile

products

Wicanders Corkcomfort Glue Down HPS tiles

Amorim Flooring North America

Also sold as:

Wicanders Series 2000 HPS

Manufacturer's Description:

Wicanders Corkcomfort Glue down tiles offer a glue down solution for the highest durability requirements. Manufactured with a high performance surface layer, it fulfills all expectations for high traffic commercial and public spaces

More information link: [www.wicanders.com](http://www.wicanders.com)

☒ Commercial ☒ Education ☒ Health Care ☒ Hospitality ☒ Industrial ☒ Residential

Manufacturer's Claimed Product Recycled/Renewable Composition

Pre Consumer Recycled: 76.5%

Post Consumer Recycled: 0.0%

Rapidly Renewable / Biobased material: 76.5% (Forestry Sustainable - Other)

CSI MasterFormat 2004 Designations

09 65 00 - Finishes - Resilient Flooring

Recycle/Renewable

Post-Industrial recycled: 76.5%

Rapidly renewable / Biobased: 100.0%

(Forestry - Non timber - Non certified)

Chemical flagged with the following hazard warning:

Material of high concern - possible CMR toxicity or respiratory. Next priority for substitution.

at least one flagged with warning: due to persistence/bioaccumulation. Avoid immediately

Certified: 2008-09-30 Expires: 2009-09-30

GreenGuard Environmental Institute (GEI)

Weaker of two GEI certification program for interior finish products for VOC emissions

Antimicrobials Listed

No Flame Retardants Listed

No Water or Stain Repellents Listed

Certification and Standards

GreenGuard IAQ Certified

Potential Credits

Coming Soon

Manufacturer Basic

2600 Cabover Drive

Suite A

Hanover, MD

21076

USA

p. 410-553-6062

f. 410-553-6123

Material

Max Min Est Frequency

Material Compound Lifecycle

Flags Flags Flags

Renewable

Endogenous

76.5 76.5 0.0 Always

Material flagged with the following hazard warning:

Material of high concern - possible CMR toxicity or respiratory. Next priority for substitution.

at least one flagged with warning: due to persistence/bioaccumulation. Avoid immediately

51

**Pharos** Pharos Project  
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home > chemical and material library > chemical profile **chemical and material library**

Black - Material of urgent concern due to persistence/bioaccumulation. Avoid immediately  
 Red - Material of very high concern due to cancer, mutation, reproductive/developmental harm, neurotox, endocrine disrupt. High priority to eliminate.  
 Orange - Material of high concern - possible CMR toxicity or respiratory. Next priority for substitution.  
 Yellow - Material of moderate concern or preliminary data of high concern. Avoid when possible.  
 Blue - Warning about potential problematic materials sometimes used with this material. Confirm.  
 Green - Material studied and found not to cause listed health impact. Watch for other flags.

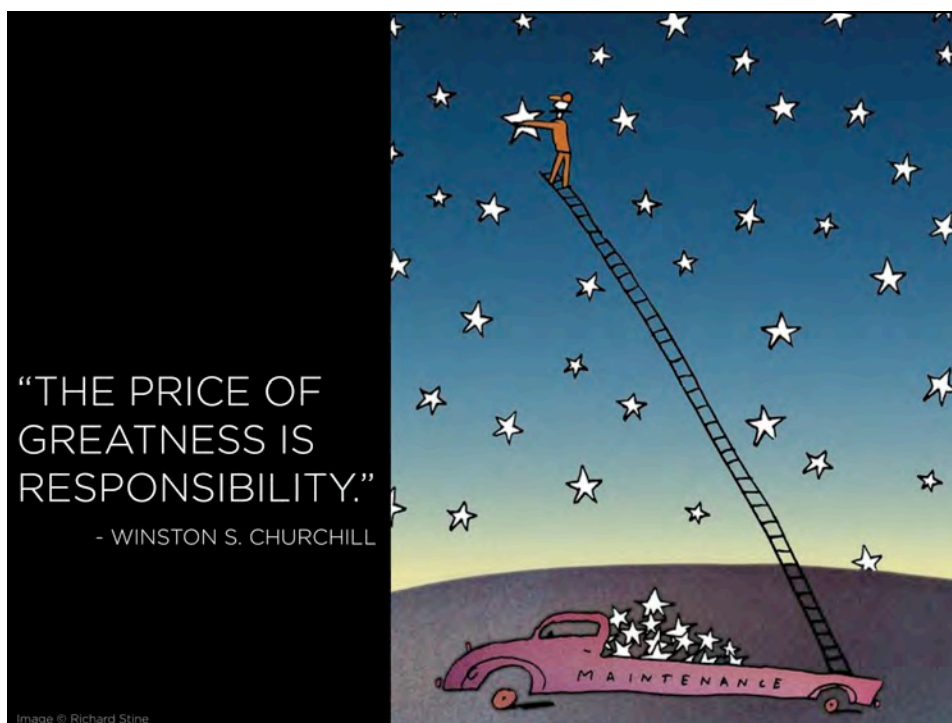
**2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TCDD)** [1746-01-6]

Life Cycle (chemicals used or emitted in the life cycle of POLYVINYL CHLORIDE (PVC))  
 This list of chemicals is not exhaustive of all chemicals that may be involved in the production or life cycle of this substance.

- Role in manufacture: Frequent Byproduct.
- Emitted during manufacture: Unknown. No known data or unclear data.
- Exposure in use: Possible. Exposure is possible by design (monomer, catalyst, pollutant/contaminant or degradation product) or has been confirmed occasionally/inconsistently or at very low levels in testing.
- Exposure in degradation: Unknown. No known data or unclear data.
- Exposure in combustion: Possible. Confirmed in certain conditions or at very low levels in testing.

**VINYL CHLORIDE (VCM)** [75-01-4]

- Role in manufacture: Integral Monomer.
- Emitted during manufacture: Unknown. No known data or unclear data.
- Exposure in use: Possible. Exposure is possible by design (monomer, catalyst, pollutant/contaminant or degradation product) or has been confirmed occasionally/inconsistently or at very low levels in testing.
- Exposure in degradation: Unknown. No known data or unclear data.
- Exposure in combustion: Unknown. No known data or unclear data.



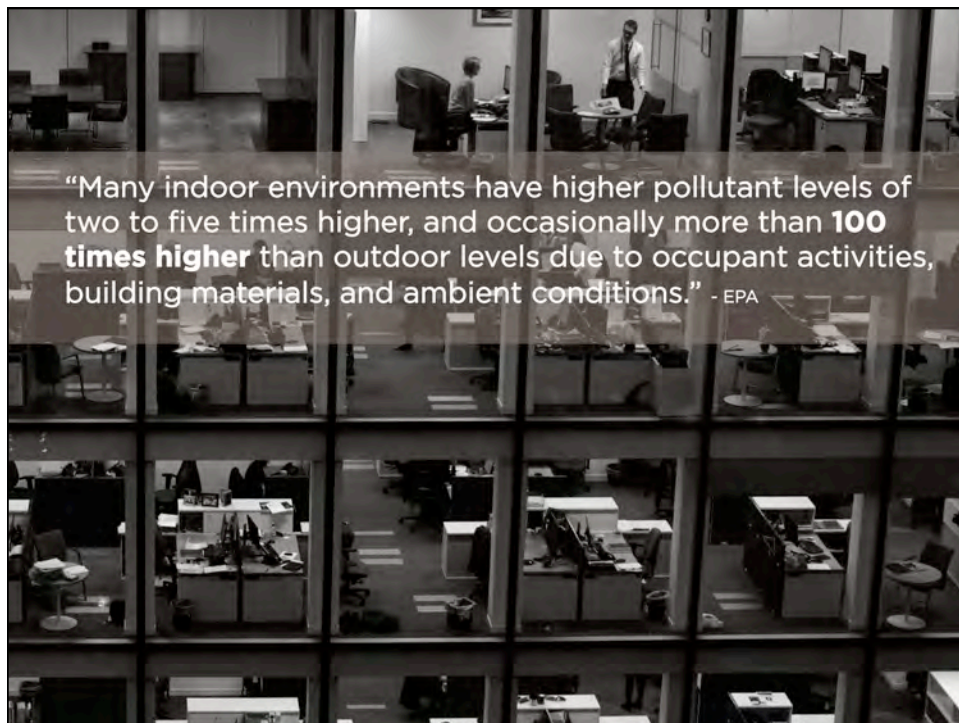
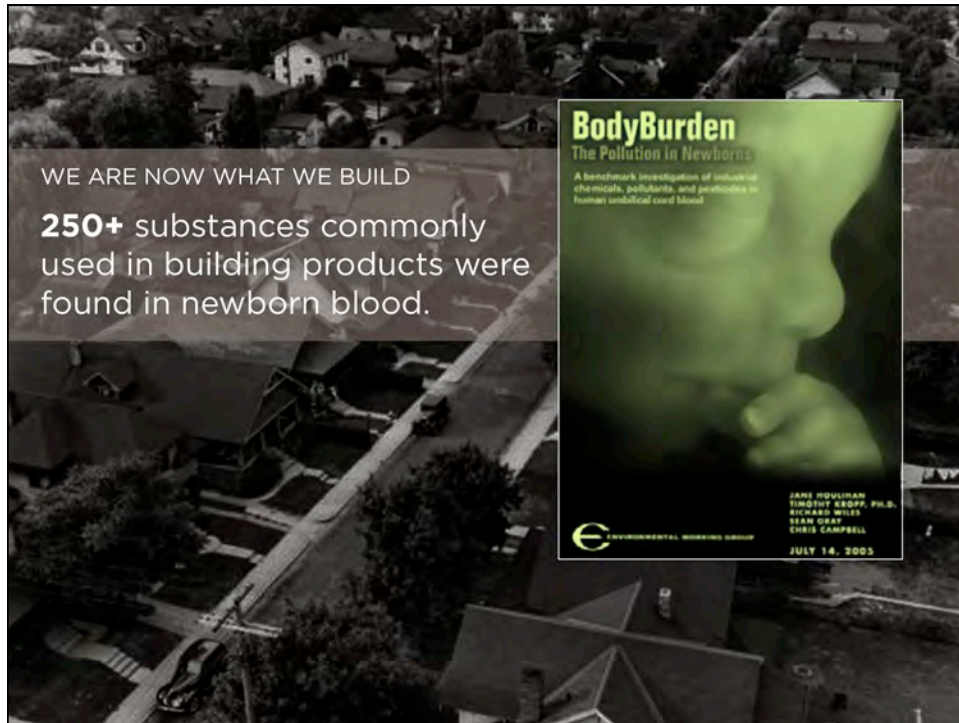


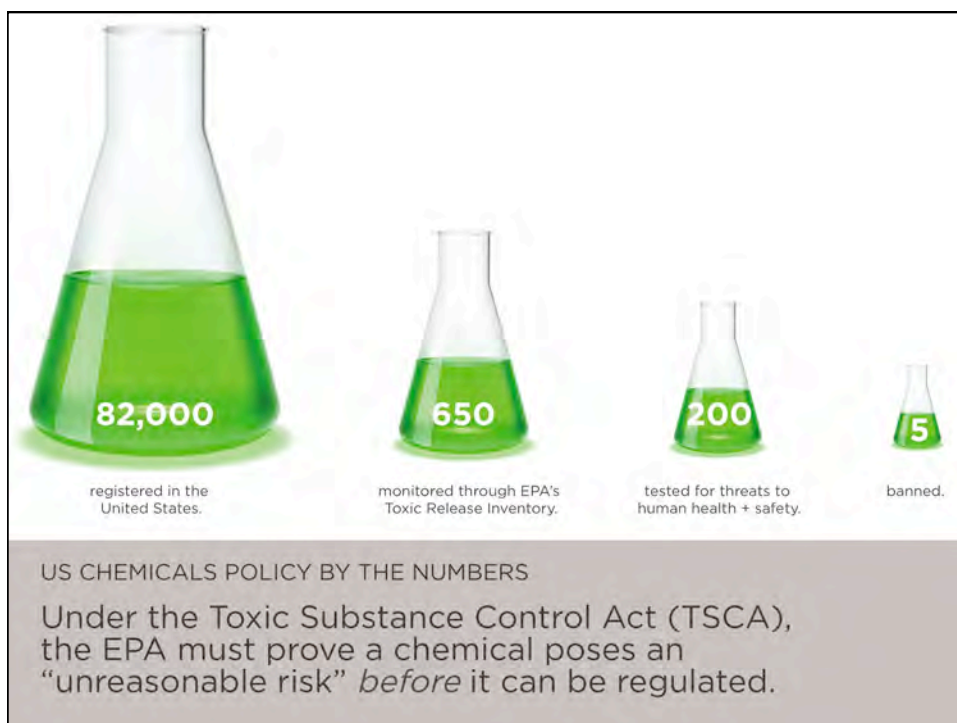
a freely available format developed to be the industry standard for manufacturers to communicate product content and health hazards.



Among the approximately **110 million** housing units in the United States, approximately **23.4 million** are considered unhealthy due to toxins and other environmental pollutants.









#### SURVEY OF 30 LEADING MANUFACTURERS, JULY 2012

TOP REASONS FOR ENGAGING IN CROSS-SECTOR EFFORTS TO ACCOUNT FOR CHEMICALS OF CONCERN:

1. corporate responsibility
2. to promote transparency
3. to have a market advantage



**SURVEY OF 30 LEADING MANUFACTURERS, JULY 2012**

BIGGEST DIFFICULTIES IN COMPILING INFORMATION FOR DISCLOSURE:

1. extensive data required
2. supplier resistance  
lack of information  
lack of time
3. internal resistance
4. too many standards

**SURVEY OF 30 LEADING MANUFACTURERS, JULY 2012**

ROLES + SKILL-SETS NECESSARY TO COMPILE INFORMATION FOR DISCLOSURE:

- Technical Engineering
- Procurement
- Environmental, Health and Safety (EHS) / Sustainability / Lifecycle Assessment
- Manufacturing Plant Management / Production
- Research and Development
- Globally Harmonized System of Classification + Labeling Chemicals (for Material Safety Data Sheets)
- Legal
- Sales
- Senior Leadership
- Outside consultants and Suppliers' staff

**SURVEY OF 30 LEADING MANUFACTURERS, JULY 2012**

WHAT THEY ENJOYED MOST ABOUT PARTICIPATING IN STANDARD CREATION:

“Having a voice in the process and an opportunity to learn more about what a segment of the market wants”

“Gaining a better understanding of the contents of our products, the manufacturing process, and potential hazard impacts”

“Learning that we are actually pretty close to being able to ‘launch’ a new green product offering”

“Helping make transparency an industry norm by facilitating this often-difficult transition for manufacturers”

Name <b>Tuff Stuff X42</b>		MasterFormat 99600			
Product ID SB5343		www.AjaxMnfr.com/highperformancecoatings			
Manufacturer Ajax Manufacturing		Contact Name John Doe			
Address Product Quality Department		Title Director of Product Quality			
Address Line 2 100 Smith Street		Phone 800 777 1234			
City, State, Code Somewhere, XX 19999		Email jdoe@AjaxMnfr.com			
Description High performance coating designed for painting bath stall walls and other wet surfaces.					

Release Date 1-Nov-2012	<input checked="" type="checkbox"/> Self-declared	
Expiry Date 31-Oct-2015	<input type="checkbox"/> Second Party	Certifier
HPD URL http://bit.ly/xYz5555	<input type="checkbox"/> Third Party	Certificate #

**SUMMARY**  
The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure	Full Disclosure of Intentional Ingredients	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> measured 100 ppm (ideal)	Are all content hazards fully disclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> measured 1000 ppm	Notes	
<input type="checkbox"/> as per MSDS (10,000 ppm)	Ajax is committed to full disclosure and intends to reformulate with disclosed ingredients by 2014.	
<input type="checkbox"/> predicted by process chemistry		
<input type="checkbox"/> not disclosed		
<input type="checkbox"/> other		

Contents in Descending Order of Quantity (if the area below is full, refer to the following pages for additional listings)  
Bisphenol A diglycidyl ether, Kaolin, Phenyl Glycidyl Ether, Butanedioldiglycidyl Ether, Undisclosed, Polyethylene, Silver, Acme Zap-It, Electronics, Mixed hardware, Formaldehyde, Palladium.

<b>Hazards</b>					
<input type="checkbox"/> PBT (Persistent Bioaccumulative Toxic)	<input checked="" type="checkbox"/> Development	<input type="checkbox"/> Neurotoxicity	<input type="checkbox"/> Land toxicity	<input type="checkbox"/> Multiple	
<input checked="" type="checkbox"/> Cancer	<input checked="" type="checkbox"/> Reproductive	<input type="checkbox"/> Mammal	<input type="checkbox"/> Physical hazard	<input type="checkbox"/> Unknown	
<input checked="" type="checkbox"/> Gene mutation	<input type="checkbox"/> Endocrine	<input type="checkbox"/> Skin or Eye	<input type="checkbox"/> Global warming		
<input type="checkbox"/> Respiratory	<input checked="" type="checkbox"/> Aquatic toxicity	<input type="checkbox"/> Ozone depletion			

Total VOC Content		Does the product contain exempt VOCs?		<input type="checkbox"/> NA <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Material (g/l) 30		Are there VOC-free tints available?		<input type="checkbox"/> NA <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Notes  
The Breathe Free tint system is available from qualified distributors. Contact Ajax Manufacturing to find your nearest distributor.

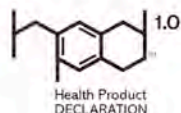
Certifications and Compliance (if the area below is full, refer to the following pages for additional listings)  
VOC Content - SCAQMD Rule 1113  
Cradle to Cradle - Silver

VOC Emissions Indoor Advantage - Gold (Residential)

Health Product Declaration v1.0 - Summary - hpdcollaborative.org - Page 1 of 4

	
EACH INGREDIENT SHOULD LIST:	
<ul style="list-style-type: none"> <li>• Substance name</li> <li>• Health Hazard Warnings (authoritative listings)</li> <li>• CAS number (or species)</li> <li>• % of weight of the product</li> <li>• GreenScreen Benchmark</li> <li>• Recycled content</li> <li>• Uses nanotechnology</li> <li>• Role or function</li> </ul>	
Bisphenol A diglycidyl ether (BADGE)	
293733-21-8 35-42.6% P1 No No Resin	
Cancer	MAK: Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
Endocrine	EU ED: Category 2 - In vitro evidence of biological activity related to endocrine disruption (also in EU R-Phrases: R36: Irritating to skin.(also in EU H-Statements)
Skin or Eye	
Multiple	EPA Action: EPA Chemical of Concern - Action Plan published

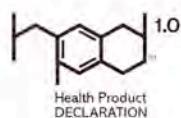




WHAT IF DOESN'T DISCLOSE 100% (IP CONCERN OR UNKNOWN?)

- HPD defines full disclosure and what to say if can't disclose.
- Complete HPD requires disclosure of health warnings and functional role, even if don't disclose identity.
- And explanation of rationale and timeline.

ACME Zap It	Unknown	6.0%	No	Antimicrobial
Unknown				Ajax has requested a full disclosure from Acme with no success. Ajax is seeking an equally effective alternative disclosed antimicrobials.
Undisclosed (sulfanated compound)	Unknown	4.1%	No	Flame retardant
Aquatic toxicity	EU R-Phrases: R52: Harmful to aquatic organisms. (also in EU H-Statements)			Ajax is seeking patent protection for its unique flame protection formulation and will disclose it once patent protection is in place.




CERTIFICATIONS + COMPLIANCE:

- Type (VOC content, emissions or recycled content)
- Certifying program (or standard), incl scenario for VOC emissions
- Certifier/laboratory
- Certifier type (1st, 2nd, 3rd)
- Date of testing & Expiration & URL
- Applicable Facilities
- Notes to explain

VOC Emissions (interior products only)	Indoor Advantage Gold (Residential)	Scientific Certifications Systems/Berkeley Analytic Associates
	Third Party	12-May-2010 12-May-2013
	Smithville, TX, Jonesville, TX	<a href="http://www.sccertified.com/products/cert_pdfs/Ajax010611.pdf">http://www.sccertified.com/products/cert_pdfs/Ajax010611.pdf</a>
		Maple Grove, AR is undergoing testing and should be certified by mid 2012

Name	<b>Tuff Stuff X42</b>			
Product ID	SB5343	MasterFormat	99600	
Website	www.AjaxMnfr.com/highperformancecoatings			
Manufacturer	Ajax Manufacturing	Contact Name	John Doe	
Address	Product Quality Department	Title	Director of Product Quality	
Address Line 2	100 Smith Street	Phone	800 777 1234	
City, State, Code	Somewhere, XX 19999	Email	jdoe@AjaxMnfr.com	
Description	High performance coating designed for painting bath stall walls and other wet surfaces.			



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Release Date	1-Nov-2012	<input checked="" type="checkbox"/> Self-declared	
Expiry Date	31-Oct-2015	<input type="checkbox"/> Second Party	Certifier
HPD URL	http://bit.ly/xYz5555	<input type="checkbox"/> Third Party	Certificate #

**SUMMARY**

The content of this product was assessed for health hazard warnings as required using Pharos

Residuals Disclosure	Full Disclosure of Intentional Ingredients	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> measured 100 ppm (ideal)	Are all content hazards fully disclosed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> measured 1000 ppm	<b>Notes</b>		
<input type="checkbox"/> as per MSDS (10,000 ppm)	Ajax is committed to full disclosure and intends to reformulate with disclosed ingredients by 2014.		
<input type="checkbox"/> predicted by process chemistry			
<input type="checkbox"/> not disclosed			
<input type="checkbox"/> other			

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**Contents in Descending Order of Quantity** (if the area below is full, refer to the following pages for additional listings)

Bisphenol A diglycidyl ether, Kaolin, Phenyl Glycidyl Ether, Butanedioldiglycidyl Ether, Undisclosed, Polyethylene, Silver, Acme Zap-It, Electronics, Mixed hardware, Formaldehyde, Palladium.

<input type="checkbox"/> as per MSDS (10,000 ppm)	Ajax is committed to full disclosure and intends to reformulate with disclosed ingredients by 2014.
<input type="checkbox"/> predicted by process chemistry	
<input type="checkbox"/> not disclosed	
<input type="checkbox"/> other	

**Contents in Descending Order of Quantity** (if the area below is full, refer to the following pages for additional listings)

Bisphenol A diglycidyl ether, Kaolin, Phenyl Glycidyl Ether, Butanedioldiglycidyl Ether, Undisclosed, Polyethylene, Silver, Acme Zap-It, Electronics, Mixed hardware, Formaldehyde, Palladium.

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<b>Hazards</b>			
<input type="checkbox"/> PBT <small>(Persistent Bioaccumulative Toxic)</small>	<input checked="" type="checkbox"/> Development	<input type="checkbox"/> Neurotoxicity	<input type="checkbox"/> Land toxicity
<input checked="" type="checkbox"/> Cancer	<input checked="" type="checkbox"/> Reproductive	<input type="checkbox"/> Mammal	<input type="checkbox"/> Physical hazard
<input checked="" type="checkbox"/> Gene mutation	<input checked="" type="checkbox"/> Endocrine	<input type="checkbox"/> Skin or Eye	<input type="checkbox"/> Global warming
<input type="checkbox"/> Respiratory	<input checked="" type="checkbox"/> Aquatic toxicity	<input type="checkbox"/> Ozone depletion	<input type="checkbox"/> Multiple
			<input type="checkbox"/> Unknown

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**Total VOC Content**

Material (g/l)	30	Does the product contain exempt VOCs?	<input type="checkbox"/> NA	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Regulatory (g/l)	50	Are there VOC-free tints available?	<input type="checkbox"/> NA	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

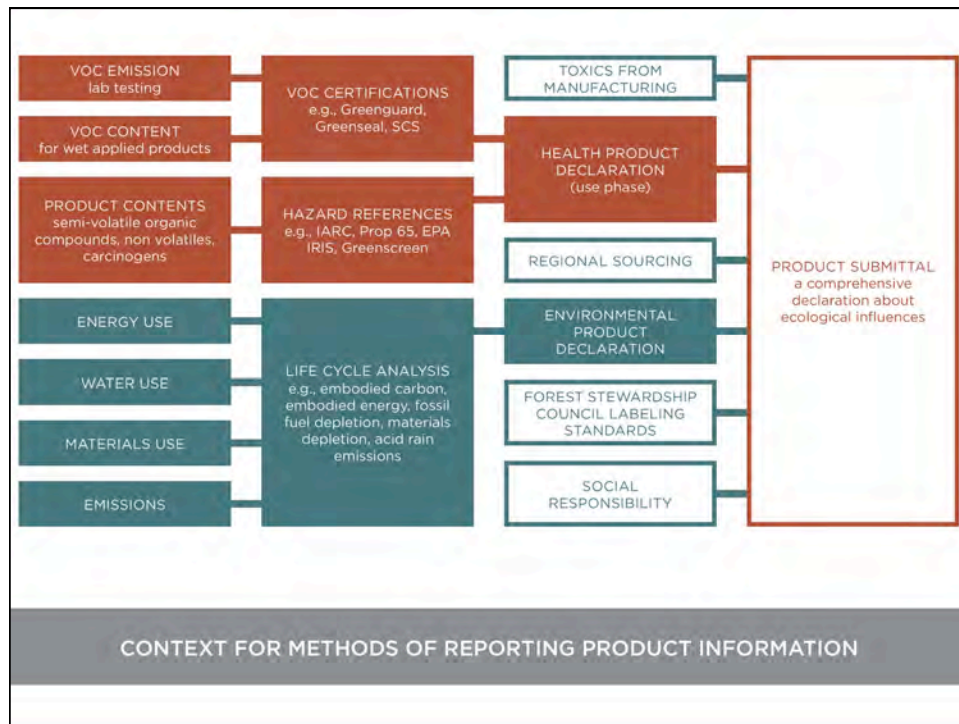
**Notes**

The Breathe Free tint system is available from qualified distributors. Contact Ajax Manufacturing to find your nearest distributor.

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**Certifications and Compliance** (if the area below is full, refer to the following pages for additional listings)

VOC Content	SCAQMD Rule 1113	VOC Emissions	Indoor Advantage - Gold (Residential)
Cradle to Cradle	Silver		



**WHAT YOU CAN DO**  
**IDENTIFY YOUR PRIORITIES**

**SET A MINIMUM STANDARD**

*also consider:*

- Goals
- Project Type
- Location
- Use
- Budget
- Schedule



## WHAT YOU CAN DO REASSESS YOUR LIBRARY

Evaluate your current product options using the most appropriate filter

Remove products that don't meet criteria and let the manufacturer know!

Find products you like ask the "hard" questions - don't give up!

Specify products that work communicate with your dollar




## WHAT YOU CAN DO REACH OUT + MOVE FORWARD

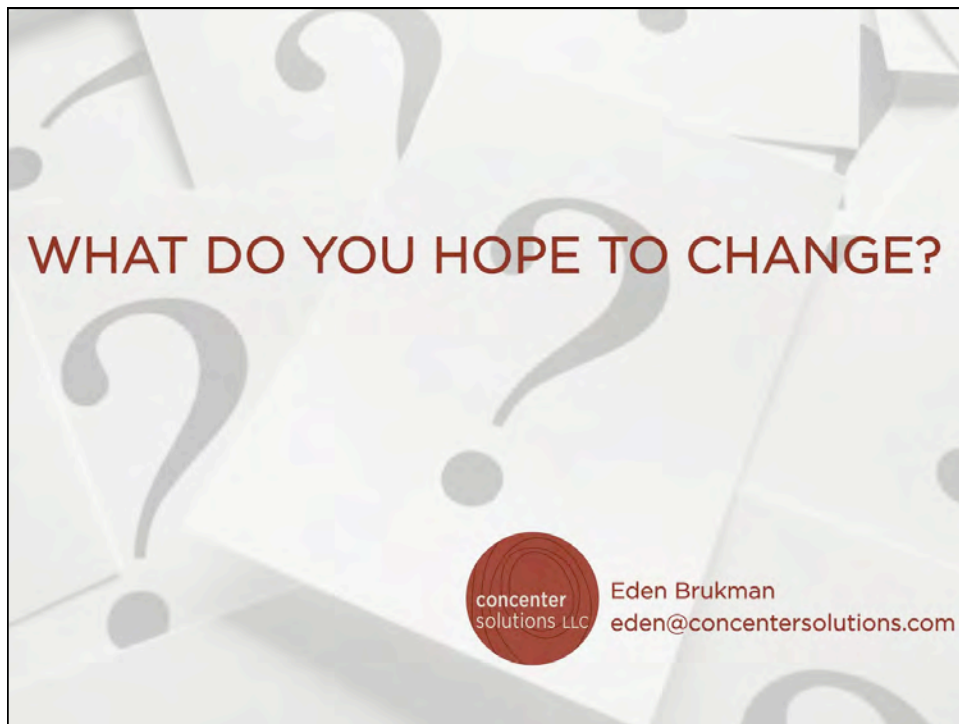
Specify products that work communicate with your dollar

Talk to Product Representatives and Manufacturers about their Processes


- Prescreen Vendors
- Share your Expectations
- Build Bridges: Unify the Industry

Communication is critical to achieve our common goal of a restorative future

<b>Name</b> Tuff Stuff X42 <b>Product ID</b> SB5543 <b>Website</b> www.AjaxMfr.com/highperformancecoatings <b>Manufacturer</b> Ajax Manufacturing <b>Address</b> Product Quality Department <b>Address Line 2</b> 100 Smith Street <b>City, State, Code</b> Somewhere, XX 19999 <b>Description</b> High performance coating designed for painting bath stall walls and other wet surfaces.		<b>MasterFormat</b> 99600 <b>Contact Name</b> John Doe <b>Title</b> Director of Product Quality <b>Phone</b> 800 777 1234 <b>Email</b> jdoe@AjaxMfr.com	 <b>Health Product DECLARATION</b>
<b>Release Date</b> 1-Nov-2012 <b>Expiry Date</b> 31-Oct-2015 <b>HPD URL</b> http://bat.ly/Yz5555	<input checked="" type="checkbox"/> Self-declared <input type="checkbox"/> Second Party <input type="checkbox"/> Third Party	<b>Certifier</b> <b>Certificate #</b>	
<b>SUMMARY</b> The content of this product was assessed for health hazard warnings as required using Phoros.			
<b>Residue Disclosure</b> <input checked="" type="checkbox"/> measured 100 ppm (ideal) <input type="checkbox"/> measured 1000 ppm <input type="checkbox"/> as per MSDS (10,000 ppm) <input type="checkbox"/> predicted by process chemistry <input type="checkbox"/> not disclosed <input type="checkbox"/> other		<b>Full Disclosure of Intentional Ingredients</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Are all content hazards fully disclosed?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Notes</b> Ajax is committed to full disclosure and intends to reformulate with disclosed ingredients by 2014.	
<b>Contents in Descending Order of Quantity</b> Bisphenol A diglycidyl ether, Kaolin, Phenyl Glycidyl Ether, Butanedioldiglycidyl Ether, Undisclosed, Polyethylene, Silver, Acme Zap-it, Electronics, Mixed hardware, Formaldehyde, Palladium.			
<b>Hazards</b> <input type="checkbox"/> PBT <input checked="" type="checkbox"/> Development <input checked="" type="checkbox"/> Reproductive <input checked="" type="checkbox"/> Endocrine <input checked="" type="checkbox"/> Respiratory <input type="checkbox"/> Neurotoxicity <input type="checkbox"/> Mineral <input type="checkbox"/> Skin or Eye <input checked="" type="checkbox"/> Aquatic toxicity <input type="checkbox"/> Land toxicity <input type="checkbox"/> Physical hazard <input type="checkbox"/> Global warming <input type="checkbox"/> Ozone depletion <input type="checkbox"/> Multiple <input type="checkbox"/> Unknown			
<b>Total VOC Content</b> <b>Material (g/l)</b> 30 <b>Regulatory (g/l)</b> 50		<b>Does the product contain exempt VOCs?</b> <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Are there VOC-free tints available?</b> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Notes</b> The Breathe Free tint system is available from qualified distributors. Contact Ajax Manufacturing to find your nearest distributor.			
<b>Certifications and Compliance</b> <small>Visit your catalog for full details on all certifications and compliance.</small> <b>VOC Content</b> SCAQMD Rule 1113 <b>Cradle to Cradle</b> - Silver <b>VOC Emissions</b> Indoor Advantage - Gold (Residential)			



WHAT DO YOU HOPE TO CHANGE?



Eden Brukman  
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