



Welcome to the New Wave

The Future of Furniture Materials and
Their Contribution to Healthy Interiors

How toxic are American homes?

- 90% of time spent indoors
- EPA: Indoor air 10X more polluted than outside
- Indoor air 3-5X more VOCs than outside
- NE Journal: 40% of our children will develop a respiratory disease
- Greater frequency of chronic respiratory diseases: Asthma & Allergies
- Effects from our toxic environments: Headaches, Nasal Congestion, Nausea, and Fatigue, Damage to the Heart, Liver or Kidneys, Damage to the Central Nervous System, Cancer, Alzheimer's Disease
- Children more susceptible: Still growing & breathe in proportionately more air. Organs & respiratory, immune and neurological systems still developing. Much closer to the ground, thus breathing in more of the heavier airborne chemicals.

What are the leading causes?

- Asbestos & Lead: Used extensively until the 1970s
- Biological Contaminants: Mold, Bacteria, Animal Allergens
- Formaldehyde: VOC and Carcinogen
- Volatile Organic Compounds
- Chemicals in Furniture, Cleaning Agents, Floor & Window Treatments, and Finish Materials
- People: Diet, Perfumes, Clothing
- Pesticides: 25% of the world's pesticides are used on cotton crops

Paints, Stains & Coatings

Standard Procedure

- Paints and stains that contain petroleum products, heavy metals, solvents and chemical pigments
- Petroleum and water-based clear coat polyurethane, containing formaldehyde, toluene, ethylene glycol, or other toxic chemicals
- Brominated flame retardants, banned in Europe because they cause brain disorders & birth defects

Paints, Stains & Coatings

Healthier Paints & Stains

- Zero VOC base with Zero VOC colorants
- Natural Pigments
- Solvent-free, no heavy metals
- Oil paints, if used, should be mercury free
- Milk paints: Most gentle paint, but not typically moisture resistant & are hard to touch up

Healthier Coatings

- Plant-based oil wax finishes:
Linseed and tung oils, beeswax, and carnauba wax
- Water-based polyurethanes without formaldehyde & toluene
- Lead-free dryers

Adhesives

Standard Procedure

- Contain solvents such as benzene, toluene, or xylene
- Added formaldehyde in plywood & particleboard is used as a bonding agent

Healthier Options

- Non-toxic water-based glues (Tilde Furniture uses Titebond Original Wood Glue)
- No added urea-formaldehyde sheet goods
- Low-to-Zero VOC sealants, caulk, wallpaper pastes and wood floor adhesives are all available on the market

Upholstery Fill

Standard Procedure

- Petroleum-based foam and dacron (created by blowing glass in to petroleum-based polymers)
- Treated with bleach, synthetic dyes, and chemical preservatives
- Natural materials: Wool, cotton, sisal, hair & feathers

Healthier Options

- Natural latex foam (derived from rubber trees)
- Organic cotton batting, wool batting (wool is a flame retardant & antimicrobial)
- Natural fillers without chemical coatings
- Natural jute webbing

Fabrics and Leather

Standard Procedure

- Synthetics are usually petroleum-based & made with toxic chemicals
- Standard chemicals used in the process of dyeing fabrics and leather are very toxic
- Natural fibers: cotton, wool, bamboo, hemp, viscose, and linen

Healthier Options

- Organic natural fibers, eliminating pesticides
- Leather without heavy metal tannins, that are vegetable dyed
- Global Organic Textile Standard: Ensures all cotton is 100% organic & spinning, weaving, & washing processes are free of hazardous chemicals
- Tightly woven fabrics that minimize dust & trapping of fluids (easier to clean fabrics without stain protection)

How responsible do you want to be?

Find your personal balance.

Simple ways to make a difference

- Ask manufacturers if their materials are non-toxic, and have them put it in writing
- Ask showrooms which of their products are eco-friendly
- When practical, specify hard surfaces over soft goods. They don't trap germs.
- Specify stain & fire protection only when it's most practical
- Specify Zero VOC paints with no heavy metals and carcinogens. Specify very low or zero VOC stains and sealants.
- Educate yourself and teach your clients

Great Sources

Book: Sustainable Residential Interiors by Associates III

USGBC.org

TildeFurniture.com

GreenBuildingPages.com

GreenerChoices.com

Local green architectural product stores

TILDE FURNITURE
stylish. sustainable. sensational.