

## Key Questions for Environmentally Preferable Building Material Selection

Designed for interior finish materials and furniture but adaptable to other products

- 1) **Material feedstock** Describe for each component (e.g., face, binder and backing for carpet):
  - a. What materials are included in each part of the product? List materials and component chemicals in each component or layer separately. Provide the name and location (city, state, zip code, country) of plants that provide major feedstock materials for the product.
  - b. Does the material contain any heavy metal additives or other persistent bioaccumulative toxins (PBTs) such as lead or mercury or materials such as PVC that result in the release of PBTs during their lifecycle?
  - c. Are there added urea or phenol or other formaldehydes?
  - d. Any other materials listed in the National Toxicology Report on Carcinogens?
  - e. How much of the material is from rapidly renewable resources (such as biomass)? Describe the agricultural/forestry practices associated with these resources. Is the sustainability of the practices certified by and FSC, fair trade, organic or other independent certifier?
  - f. How much is from recycled feedstocks? How much post consumer vs. post industrial?
  - g. Describe the TRI emissions (type & quantity), if any, from the most recent TRI reporting associated with these recycled feedstocks.
  - h. How well guaranteed are your supplies of the materials for this product (for example, of a recycled content stream)?
- 2) **Manufacturing, packaging and transportation**
  - a. What is the embodied energy and/or greenhouse gas emission content of the product?
  - b. Does the manufacturing process use CFCs, HCFCs or other ozone depleting gases?
  - c. What dye process is used or how else is color or printing added? What have you done to eliminate toxic materials from these processes and to reduce water consumption?
  - d. What emissions result from the manufacture of this product? Include the extraction and production of raw materials and feedstock as well as your manufacturing process. Does the process release any substances listed on the US EPA Toxics Release Inventory? At what level? What have you done to minimize these emissions? Provide the name and location (city, state, zip code, country) of your plants for TRI confirmation.
  - e. What has been done to minimize other environmental impacts from the manufacture of your product? Include the extraction and production of raw materials and feedstock as well as your manufacturing process. Include water, energy, climate change, ozone depletion, waste reclamation, and habitat preservation issues. Describe the benchmarks against which progress is being measured. For example, indicate the water consumed per square foot of flooring or yard of carpet manufactured.
  - f. What is the company doing to protect occupational health and safety beyond the standards mandated for or typical for the industry?
  - g. If sources of supply are foreign, are verifiable data on environmental impact and fair trade/fair labor practices available?
  - h. Is the company now ISO 14001 certified or currently working towards certification? Please provide your ISO 14001 goals and any reported progress to date.
  - i. How far are the materials used in this product transported and by what modes from harvest or extraction to feedstock production to the manufacturing plants to the customer?
  - j. What materials do you use in packaging your product? What have you done to reduce packaging? What is the post consumer and/or post industrial recycled content? Is the packaging reusable, recyclable or compostable? What do you do to facilitate this? Do you take back packaging?
  - k. What have you done to reduce the impact of transporting your product to the user? Do you have plans to decentralize your operations to reduce delivery and recycling transportation?
  - l. Has a life cycle analysis been done on your product? Is it a comparative analysis against other comparable products? Was it done by an independent third party or internally?
- 3) **Installation, Use & Maintenance**
  - a. Describe recommended installation procedures. Are any special techniques or tools or particular temperature, moisture or other ambient or substrate conditions required? For carpet, can it be stretched or glued down?

- b. For flooring, are there moisture impermeable options? How can seams be sealed?
- c. What effect does the choice of installation techniques have on its ability to be recycled?
- d. What adhesives or other materials do you recommend for installation? Do these adhesives meet the requirement that no component present in the adhesive at more than 1% of total mass of adhesive shall be a carcinogen or reproductive toxicant as defined CA State/CHPS 1350? Are the adhesives releasable?
- e. What finishes are available factory installed and what user finishes do you recommend?
- f. What is your recommended cleaning and maintenance schedule and procedure?
- g. What materials or products do you recommend for cleaning and maintenance? Is the use of proprietary cleaning products required to validate the warranty? What have you done to evaluate the health impact of the cleaners you recommend?
- h. What are the products' performance specifications: fire rating, acoustic rating, wear ratings, stain resistance, antimicrobial protection, COF/ADA (resilient).
- i. What is the expected service life of this product? What is the warranty?

#### **4) Emissions in Use**

- a. What emissions does your product release after installation? Include emissions from the product and recommended adhesives, finishes or other installation materials. Include individual VOCs in addition to TVOCs. Describe and document testing procedures.
- b. Have the product and recommended adhesives or finishes been tested against CA State/CHPS 1350? If not, have they been tested against any of the other existing recognized independent indoor air quality standards (such as AQS/GreenGuard, GreenSeal, Washington State, CRI Green Label, South Coast Air Quality Management District Regulations)? Provide certified testing results from an independent laboratory.
- c. What emissions result from use of recommended cleaning and maintenance products?
- d. What do you recommend to reduce occupant exposure to emissions from your product and related installation, cleaning and maintenance products (flush out times, maintenance procedures, etc)

#### **5) Verifications and Guarantees**

- a. How do you guarantee performance of the product (particularly products on the market for 5 years or less)? Will you provide a performance bond or other guarantee?
- b. What independent verification do you have of emissions claims and other content and environmental impact claims (Greenseal, GreenGuard, CRI, etc.)? Provide certifications.
- c. What guarantee is there of availability of matching products, patterns and colors in the future?

#### **6) End of Service Life**

- a. Is the product recyclable, compostable or otherwise biodegradable? Is it designed for simple disassembly?
- b. If recyclable, is this true closed loop recycling back in to the same product type or down cycling into another secondary use? Describe the process and products.
- c. If not recycled, what hazardous materials might leach out or outgas in a landfill or be released in incineration or accidental combustion (such as a building or landfill fire)?
- d. What infrastructure is in place to recycle/downcycle both installation scrap and end of service life product? What is the cost to the user?
- e. How much of the reclaimed product is actually reused, recycled, downcycled or composted in the process currently?
- f. Do you provide a guarantee that you will take responsibility for recycling the product at the end of service life?

#### **7) Environmental Policy & Innovation**

- a. Do you have a written corporate environmental policy?
- b. Describe what you are doing to develop new material formulations or new products that are more environmentally sound. What stage of development are these new products in? What is the timeline for their release?
- c. What are your goals to transform your product line to completely closed loop operations and/or to completely petrochemical or PBT free materials? Provide the percentage of your production currently represented by your most environmentally responsible products and timelines for changing the rest of the product line, including intermediate milestones.