

## *Digging into the European Union eco-label for textiles: An assessment of fibers.*

By David Mahood

In today's convoluted, globalized marketplace, is there a means to understanding the countless certifications in use around the world? Let's take the category of textiles, for example. Under the EU Eco-label for textiles, sometimes referred to as the Flower standard, the certification includes requirements for the following types of fiber: acrylic, cotton and other natural cellulosic seed fibers, elastane, flax, other bast fibers, greasy wool, man-made cellulose fibers, polyamide, polyester and polypropylene. Each fiber material is also evaluated for manufacturing methods and ultimately for color, finish, and treatment.

To synthesize the technical documentation of the Flower certification further, one can see the benefits of this eco-label due to its relatively transparent approach. For example, cotton fibers are measured for pesticide residue; polyester fiber is measured for antimony and VOC's, and viscose is measured for copper and zinc. Bast fibers are measured for all chemicals in the water that can and cannot be oxidized; polyurethanes are measured for diisocyanates, and acrylic fiber is measured for acrylonitrile- whatever that is.

Additionally, under the certification, all fibers are then evaluated on water and air polluting measures during processing and finishing. Assessing the various processes in current use for preparing a textile for commercial application is somewhat alarming. Consider the following chemicals that may be involved in the production of a fabric that you may be specifying: formaldehyde, carcinogenic dyes, toxic bleaches, heavy metals and plasticizers, toxic sizing and softening agents, and potentially, hazardous air particles due to flame retardants. One could ask the question when from the time Homo erectus decided to add color to loin cloths did these chemicals become a mainstay of fabrics? Were we in danger of dying off as a species if our togas sun-faded or if they ignited while we were rubbing sticks together?

The EU eco-label for textiles, as well as others, has properly recognized that products awash in chemical baths are not healthy to the consumer. Our over-reliance on chemical shortcuts has contributed to environmental ills worldwide and hardly exemplifies an evolved species in harmony with his lone habitat. The Flower label is meritorious for providing a universal document for all fabric types that European producers can embrace and for allowing more openness in the criteria used in the certification. A consumer could reasonably contend that buying a Flower labeled fabric was a step toward a more sustainable purchase.

One criticism of the EU eco-label for textiles, and many others related to this category, is the void in criteria related to plant fibers. More comprehensive information is needed for an appropriate evaluation of cotton, viscose or flax-based fiber, for example. A plant that has little

environmental benefit and requires a lot of chemical assistance should be assessed for its impact. A non-native plant that has dispossessed native flora and is harvested by industrialized methods by unskilled labor versus a plant fiber organically grown by a small farmer cannot be evaluated properly by this label or many others. A plant that retains topsoil and can be grown in poor soil conditions due to its hardiness may make a much more sustainable fabric than one derived from corn, for example. A fiber produced from a native plant that can be grown with traditional farming principles and is agriculturally benign should not be lumped in with petroleum-based fibers either as it is under the Flower label set of evaluators.

Unfortunately, building codes and brand standards have also made no distinction between plant-based and synthetic fibers either. These regulations eliminate the specification of many natural fibers because of safety regulations and performance tests, in essence predetermining the fabric content. The perverse equation of building codes or property standards created for consumer safety in opposition to environmental welfare exists in today's commercial markets. These superfluous standards may indeed be contributing to air or water pollution, a safety or performance issue that exceeds the one it was intended to counteract. Hence, a well-conceived fabric certification program like the Flower can only provide a general material and process environmental indicator for the concerned citizen, which is, without question, a benefit. It cannot be a substitute for the deeper analysis needed to assess the specific benefits of materials within this broad category of textiles. Understanding certifications require as much transparency as can be achieved within the complexities of the product. Perhaps we bipeds need to go back to the basics and crawl a little longer in the dirt to start analyzing fibers.

**David Mahood** is the V.P. Sustainability, NEWH, and the principal of Olive Designs, a company he founded in 1998. He is a sustainable manufacturing consultant to the hospitality, residential and commercial furniture industries and lecturer on the topic of sustainable hospitality and a contributor to publications dedicated to sustainable furnishings. He also serves as the co-chair of the standards committee of the Sustainable Furnishings Council, and is a sponsor of the Nexus Green Building Resource Center, located in Boston, MA.