

Products will have to tow environmental line

By Steve Toloken

PLASTICS NEWS STAFF

NEW YORK (Sept. 26, 4:35 p.m. EDT) -- Global political pressures will force product designers and manufacturers in the United States to adopt more environmentally friendly designs, giving greater consideration to recycling and avoiding plastics with potentially toxic materials such as brominated flame retardants.

At least that's the message that came from speakers at a Sept. 21 industrial design seminar sponsored by GE Plastics: A rush of legislation in Europe and Japan, and some similar plans in China, will wind up setting de facto standards that must be met by global manufacturers.

A European Union directive on electronics recycling took effect in August, and a related EU regulation banning or limiting a series of chemicals in electronics (including several kinds of flame retardants in plastics) is scheduled to take effect next year.

The recycling law, called the Waste Electrical and Electronic Equipment directive, requires manufacturers to have systems in place to take back electronic products when they're ready to be thrown out. That, observers say, will force changes in product development.

"The outcome of the WEEE directive will be more environmentally friendly design," said Christine Murner, who monitors global regulatory trends as director of agency programs for GE Plastics. She spoke at the forum, held in New York.

For plastics, that means reducing the number of plastics used in a product to aid recycling, or designing a product that it can be disassembled quickly, said Jacquelyn Ottman, president of J. Ottman Consulting in New York and author of the book *Green Marketing: An Opportunity for Innovation*.

Ottman has advised GE, DuPont Co., IBM Corp. and others on environmental marketing, and is spearheading the Design:Green educational initiative aimed at product designers.

Companies also will try to move away from painting toward in-mold decoration, Murner said. "A painted plastic part has a whole different implication at the end of its life than something with in-mold color."

The conclusions mirror those of a recent report from Mountain View, Calif.-based consulting firm Frost & Sullivan that said as companies look to reduce the variety of plastics used to comply with WEEE, polypropylene could be a winner and PVC a loser.

Related to the WEEE directive, the Restrictions on Hazardous Substances directive limits materials like lead, mercury and both penta and octa brominated flame retardants.

Deca-brominated chemicals probably still will be allowed when the law takes effect July 1, but some companies are moving away from that class of chemicals altogether, Murner said.

Meeting the directives most likely will add cost, Murner said, although she added that she hasn't seen evidence of that, to date. A study this month from Technology Forecasters Inc. of Alameda, Calif., predicted that the one-time cost of complying with RoHS will be about 2 percent of the cost of goods sold, which the firm said is less than the 10 percent others were predicting.

It's more than just legislation pushing the environmental concerns, Murner said. In the big picture, trends such as the increasing scarcity of water will be a motivator for governments. For example, some projections say that about 40 percent of the world will live in a water-scarce area in 2030, up from 8 percent in 2000, she said.

If nothing else, green design offers marketing advantages. At the seminar, for example, GE distributed materials to industrial designers saying that some of its resins could be used as more environmentally friendly replacements for vinyl, to meet the new European electronics standards.

Some materials GE makes, such as polycarbonate, draw environmental questions of their own. For example, some scientists and advocacy groups question PC use because bisphenol A, a chemical building block of PC, mimics human hormones and is linked to things like lower sperm counts.

The recent history of the plastics industry is replete with both good and bad environmental performers, and they offer lessons for companies that want to position themselves as green, Ottman said.

Misleading claims of degradability by the Hefty trash bag brand in the early 1990s did a lot to increase consumer skepticism about green marketing,

and resulted in the company being sued by several state attorneys general, she said.

“It really triggered a whole movement [for the Federal Trade Commission] to come out with guidelines for environmental claims,” Ottman said.

But other companies, like Wellman Inc., have had success with environmental products and marketing, she said. Wellman marketed its Ecospun fiber, made from recycled PET bottles, as saving enough electricity to power a major city, giving consumers a concrete way to see their purchase as helping the environment, Ottman said.

But Ottman, who had a career in advertising before specializing in green marketing, also said companies can’t pitch products mainly for their environmental benefits.

That won’t resonate with consumers, who, studies show, mainly are interested in buying based on cost, performance and other very practical considerations, Ottman said. An environmentally oriented product generally must showcase its performance attributes first, as Toyota is doing with its Prius hybrid car, she said.

“There is not a whole lot consumers are willing to do beyond recycling,” she said.

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