



INSIDE THIS ISSUE:

**THE SCIENCE OF
WHAT IS REALLY
“GREEN” SUR-
PRISES MANY...**

1

**IS YOUR PACKAG-
ING REALLY
GREEN?**
**WHAT IS THE MAGIC
BULLET?**
**THE 10 MUST-
HAVE'S IN A
PACKAGE**

2

**DO YOU KNOW
WHAT THEY ARE?**
**GET HELP AT
REUSEPS.COM**

3


**WITH US YOU
CAN DEPEND ON
(SINCE 1957)**

- Safety
- Stability
- Reliability
- Consistency


**SURPRISING UPDATES ABOUT MOLDED FOAM
AND OUR ENVIRONMENT**

Plastics in general and foam packaging in particular too often get an undeserved black eye when it comes to their impact on our environment. But that's changing as the facts and science on these same issues continue telling a different story.

The first part of the story is that there is no clear villain or hero. There is no magic bullet material or process that can efficiently and effectively tick off the ten basic requirements a commercial package must meet, namely:

1. product protection
2. producer quality control
3. user utility and convenience

4. cost effectiveness
5. marketability
6. global availability
7. material processability/stability
8. distribution chain reliability
9. environmental compatibility
10. consumer safety

If there were a truly “green” material that also could meet all ten basic requirements – we’d all know about it. That material would be the hero.

Over the past few years green solutions have been rushed to the market place based on a need to be recyclable or biodegradable, etc... only to later find out that while they may have

been those two things, if they can't also meet all ten of the basic packaging requirements, downstream issues occur that negatively impact not only the company using them but also the environment. If a product fails in the field or marketplace the environmental impact of returning it, then repair or re-manufacturing, redelivery, etc... is enormous.

The other part of the story is... the science. Years ago people railed against EPS based on ozone depletion issues relating to the use of CFC's – until they found out that not only were no CFC's used anywhere in the EPS manufacturing chain, they never were.

THE FACTS ARE TELLING AN INTERESTING STORY

Molded foam also received pressure from groups who were worried that it was filling up landfills because it wasn't biodegradable. But then many independent studies demonstrated that most biodegradable materials, like food waste and paper, don't degrade either due to a lack of light and/or air.

Additionally, those same studies showed that all EPS, at a maximum, comprised less than 1% of the total municipal solid waste in a landfill. By contrast, paper and paperboard products total 20% ~37%. [landfill link](#)

The most recent turn of events relate to Life Cycle Inventories

(LSI), Life Cycle Assessments (LSA), Cradle to Grave Studies and Total Carbon Footprint Analysis. All of these in one form or another closely look at the total impact of a material and process from its basic building blocks, through processing, shipping, packing, distribution, end use and disposal.

Do you ever get asked questions about “residual styrene” in foam packaging, CFC’s, or HCFC’s follow this link for more information... [click here](#)

How about Greenhouse Gasses? [Click here](#)

FOAM FABRICATORS, INC

8722 E. San Alberto Drive

Suite 200

Scottsdale, AZ

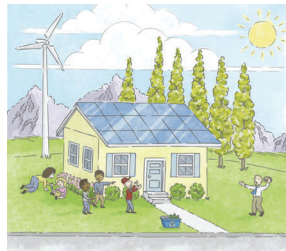
85258

(800)626-1197

Fax (480)607-7333

E-mail: ffihelp@foamfabricatorsinc.com

Web: www.foamfabricatorsinc.com



Helping our customers *mold* a better future

EXPANDED PLASTICS DESIGN, TESTING AND MANUFACTURING

In the end, they all show similar things; molded foam is no more harmful than paper and/or starch alternatives (all material have some impact on the environment) but in many cases EPS is an environmentally *preferable* solution. Why is this? First and foremost molded EPS is superb at fulfilling all ten basic packaging requirements mentioned earlier. But beyond that, the process to produce it uses far less water and energy than almost all alternatives, especially paper products. And it has no upstream issues like the starch based materials (related to pesticides and fertilizers and a raw material competing with food sources).

One study compared the total impact of a cubic meter of popcorn and the same quantity of polystyrene loose-fill – with no clear environmental winner or loser...

An interesting point that almost all the LCI/A studies make is that transportation (trucks/trailers) emissions can comprise a very large segment of the total carbon footprint of all paper and plastic packaging. Less than 4% of all crude oil is used to make plastics. Far less than 1% of all crude oil is used to produce all molded foams. This means an efficient (high truckload yield) EPS package could actually save more oil than was used to produce it

in the first place! [1% link](#)

Does all this mean paper and starch products are actually “bad” and foam pkg is “good”? No. But the studies do show that molded foam, and EPS in particular, can be a very reasonable and responsible pkg material choice when and where the application is appropriate (often cushioning or insulation) and the design is efficient.

Some will also ask, why can't I recycle EPS at my curbside? This has been attempted in several municipalities. The return rates were so low that the programs were not economically viable and consumed more natural re-

-sources than they saved. If you think about it, foam packaging normally only comes into your home occasionally; typically when you buy something new like a television, computer or appliance, sometimes also with specialty frozen foods or medicine. Many paper, glass and metal products are entering your household almost every single day, largely packaging day-to-day food and beverages items. So there is a lot less foam packaging to begin with and not everyone recycles. Having said all that, the good news is non-curbside EPS recycling rates continue to climb. The EPS industry needs to support maintaining this trend and find ways to make recycling easier for consumers - but there is no question the numbers are going in the right direction. In 1990 the recycling rate of EPS was about 1.7%, eighteen years later it's over 20%. [recycle link 1](#) [#2](#)

So what ultimately is the right answer? First, all materials have some impact on the environment and there is no green magic bullet out there. Second, in the right circumstances, usually cushioning and insulating, EPS can be an environmentally friendly choice. And last, make sure you have ALL the facts, understand that ALL packaging materials have some impact on the environment - you then can make a reasonable and responsible choice.

All of the studies and facts cited in this newsletter can be found in the links or at www.reuseps.com

