



2008 Results Reflect Increased Recycling Rate

The 2008 Expanded Polystyrene (EPS) Packaging Recycling Rate Study (the "Rate Study") was conducted by R.W. Beck on behalf of the Alliance of Foam Packaging Recyclers (AFPR). To better track EPS recycling trends AFPR gathers data to reflect both post-commercial and post-residential collection streams. The results reflect an increase in the number of post-consumer pounds recycled in 2008 based on data received from fifty-one EPS manufacturers and independent recyclers in twenty states.

As reflected in Table 1, more than 69 million pounds of EPS was recycled during calendar year 2008. This figure includes 28.5 million pounds of post-commercial packaging; 5.1 million pounds of post-consumer packaging and 35.8 million pounds of post-industrial recovery. Post-consumer and post-commercial recycling are defined as any material that is recycled after its intended end-use – while post-industrial recovery includes EPS facility scrap that is recycled but never served its intended end-use as a packaging material.

As compared to the 2006 Rate Study, 2008 demonstrates incremental growth in the amount of post-consumer recycling within the EPS industry. This steady performance is supported by a strong foundation of high volume sources and proves the success of industry recycling efforts in the United States. Forty two percent of survey participants reported an increase in recycling; this demonstrates ongoing improvements in EPS collection efforts as well as further development in end-use markets, primarily in innovative building applications. Since the majority of EPS recycling is largely based on a closed-loop system, a decrease in manufacturing demand may prove challenging for sustainable end-use EPS markets. The potential for increased EPS recycling is interdependent on improved participation from the commercial and consumer base. This dictates the need for recycled content specifications for packaging applications and ongoing support in packaging procurement to specify post-consumer transport packaging.

Domestic EPS Recycling During 2008

(In Millions of Pounds)

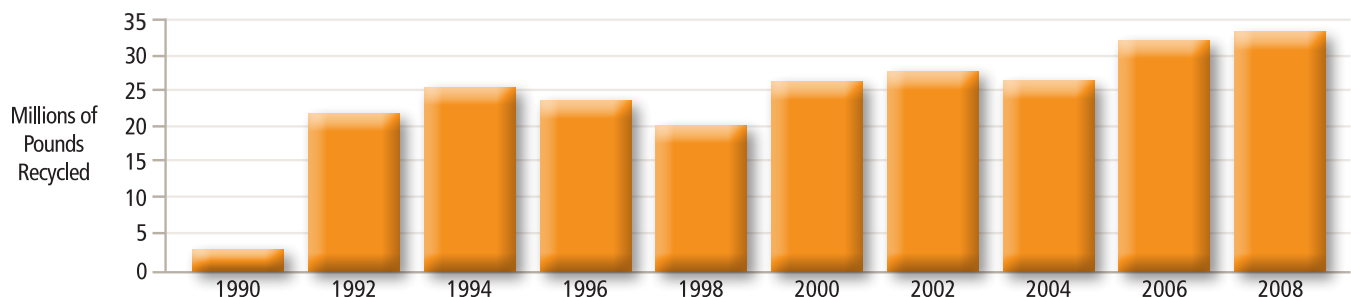
Post-Consumer	33.6
Post-Industrial	35.8

Total EPS Recycling	69.4



Domestic Post-Consumer & Post-Commercial EPS Recycling

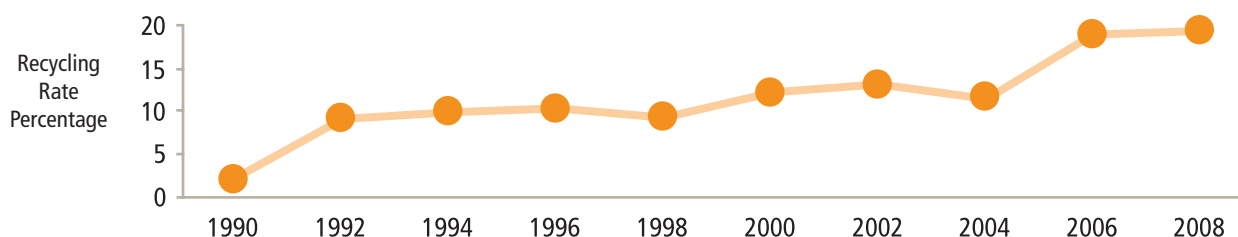
1990 – 2008



EPS Achieves 19% Recycling Rate

As shown in Figure 2 and Table 2 below, the EPS packaging recycling rate remains one of the highest among the plastics family showing a dependable track record to deliver consistent results. Including rigid, durable polystyrene and other grade materials, EPS post-consumer and post-commercial recycling represent 50% of all post-use polystyrene recycled in the U.S. and Canada.

U.S. Post-Consumer & Post-Commercial EPS Recycling Rate History: 1990–2008



U.S. Post-Consumer & Post-Commercial EPS Recycling Collection Data: 1990–2008

(Millions of Pounds)

RATE COMPONENT	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008
POUNDS RECYCLED	3.0	20.8	24.2	22.5	19.2	24.9	26.2	25.0	32.0	33.6
POUNDS SOLD	179	218	238	217	202	206	201	222	166	172
RECYCLING RATE	1.7	9.5	10.2	10.4	9.5	12.1	13.0	12.0	19.3	19.5

Report Methodology

The methodology for this annual report focuses on the development of a numerator and denominator figure. Recycled pounds, used as the numerator in the recycling rate equation, are based on an annual survey of post-consumer and post-commercial plastic recyclers (including EPS industry manufacturing facilities) and reflect a definitive quantity of EPS recycled each year. Recycled pounds were counted at the stage where materials enter a reclamation facility (as opposed to net

material recycled into resin or products) or were shipped for recycling outside of the U.S. and Canada.

Due to supply distribution chains and multiple end-use applications for EPS, a fixed number for EPS packaging generated each year is not available. Other manufacturing streams include building and construction applications, sporting goods and other durable products. As a proxy, resin sales data as reported for shape molding applications

are used as the denominator in the recycling rate equations, which were provided by the American Chemistry Council (ACC) Plastics Industry Producers’ Statistics Group. ACC reports are compiled from primary data reported by resin producers to the professional services firm of Veris Consulting, LCC. This does not account for non-U.S. resin sales which may offset the quantities reported by U.S. resin suppliers sold into shape molding facilities for non-packaging applications.



EPS Collection & Reuse

Expanded polystyrene (EPS) foam packaging is an excellent material for recycling and reuse with a 15 year history of environmental stewardship. Members of the Alliance of Foam Packaging Recyclers sponsor these efforts with ongoing financial support and active involvement in the collection and reprocessing of EPS. The EPS industry also funds the Plastic Loose Fill Council (PLFC), a national reuse program for plastic loose fill, also known as 'packing peanuts.'

Recycling Criteria

Not all materials are well suited for recycling. Post-consumer EPS packaging must be clean and free of tape, film and cardboard. Expanded polystyrene made with a fire retardant additive, typically used in the manufacture of EPS building insulation, requires special reprocessing conditions. To enhance collection efforts and maximize the investment in recycling equipment, AFPR recycling locations concentrate on large volume, commercial sources of post-consumer EPS. Some locations also offer consumer drop-off access.

To find out if EPS recycling is available in your area, visit the AFPR website at www.epspackaging.org. For consumers that do not have access to a local drop-off center, the Alliance of Foam Packaging Recyclers sponsors a National Take-Back Program intended for smaller quantities of EPS which can be mailed via U.S. Postal Service or UPS to more than thirty locations nationwide. Full instructions and a list of Take-Back locations are available on the AFPR website.

The Plastic Loose Fill Council

The Plastic Loose Fill Council's "Peanut Hotline" is a unique program that delivers tangible savings to the environment. The Hotline automatically directs consumers to local packing businesses willing to accept used EPS loose fill for their own packaging needs. With locations in all 50 states, close to 1,500 collection centers offer consumers an easy access opportunity to return post-consumer loose fill for reuse. This convenient, community-centered collection program reports a reuse rate as high as 50 percent. Over 800,000 calls to the Peanut Hotline have been received since the program was launched in 1991.

Made from both post-consumer and post-industrial feedstock, using up to 100% recycled content, EPS loose fill takes less energy—up to 50% - to produce than alternative packaging materials. Because it is over 99.6% air, EPS loose fill is extremely lightweight, resulting in reduced shipping costs. And, its superior performance properties significantly reduce damage during transit.

For more information on EPS loose fill reuse contact the PLFC Peanut Hotline at 800-828-2214 or visit them on the Internet at www.loosefillpackaging.com.



EPS Handles The Environment With Care™

- Prior to 1988, there was essentially no recovery of post-consumer polystyrene for recycling. Although the availability of polystyrene recycling programs varies by community, in 2008 more than 69 million pounds of polystyrene was recycled.¹
- The percentage of post-consumer polystyrene diverted from landfills, as a result of source reduction, re-use and recycling, increased from 0.8% in 1974 to 15.7% in 1997.²
- Between 1974 and 1997, the amount of polystyrene packaging and disposals diverted from the waste stream through source reduction increased by 40 times its original amount, eliminating more than 1,453,000 tons of polystyrene. The amount of polystyrene source reduced in 1994 had an energy savings equivalent of having recycled 51% of polystyrene packaging and disposals produced that year.³
- No chlorofluorocarbons (CFCs) have ever been used in the manufacture of expanded polystyrene transport packaging.
- Nothing, not paper, plastic or even food, readily degrades in a landfill—and it's not supposed to. Because degradation creates harmful liquid and gaseous by-products that could contaminate ground water and air, modern landfills are designed to reduce the air, water and sunlight needed for degradation, thereby practically eliminating degradation of waste.⁴



¹ R.W. Beck "2007 & 2008 U.S. EPS Packaging Recycling Rate Study".

² ACC PLASTICS INDUSTRY PRODUCERS' STATISTICS GROUP, as compiled by Veris Consulting, LLC.

³ Franklin Associates, Ltd., "Waste Management and Reduction Trends in the Polystyrene Industry, 1974-1997", August 1999.

⁴ "Resource & Environmental Profile Analysis of EPS Packaging Products," Franklin Associates, 1996.

⁵ "Rubbish" by William Rathje. The Atlantic, December 1989.

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