

# THE ENVIRONMENTALLY SOUND PACKAGING CHOICE



## Protection for the environment begins with foam: R-Shield®.

R-Shield expanded polystyrene insulation provides cushioning and insulation properties to protect shipped products. Expanded polystyrene is an amazingly simple material.

**95% air**

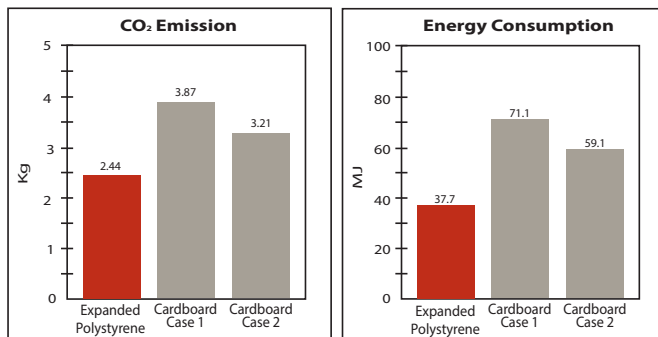
**5% recyclable plastic**



## Life Cycle Analysis

Life Cycle Analysis evaluates the cradle to grave impact of products on the environment. Despite common perceptions, the environmental impact of expanded polystyrene is lower than cardboard when a Life Cycle Analysis is conducted<sup>1</sup>.

## Comparison of expanded polystyrene Packaging to Cardboard Packaging



Packaging of a 32" LCD TV

Cardboard Case 1 = recycled core and new liner

Cardboard Case 2 = recycled core and recycled liner

Expanded polystyrene packaging clearly has lower energy consumption and CO<sub>2</sub> emissions than cardboard packaging.

## R-Shield insulation always comes in green.

### Reduce:

Less expanded polystyrene is needed compared to other packaging materials

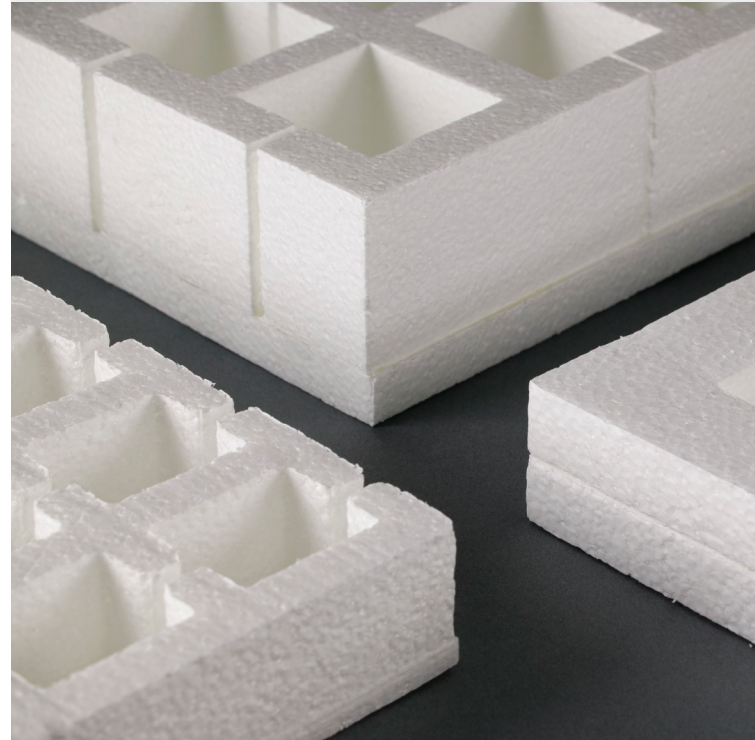
### Reuse:

Expanded polystyrene packaging is durable and can be reused over and over again



### Recycle:

Expanded polystyrene is 100% recyclable. It can be ground into granules and reincorporated into new expanded polystyrene products. Or it can be thermally processed into a resin to manufacture other new products.



## FOAM FACTS: R-Shield outperforms other packaging.

- 100% Recyclable
- Is inert and stable
- Range of densities/strengths to choose from
- Shaped to your needs and tolerances
- Superior insulation value for temperature-sensitive products
- Promotes recyclable and reduced packaging

## Expanded polystyrene packaging prevents waste



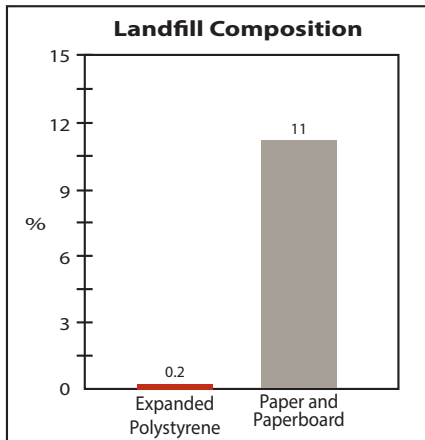
## Packages get dropped.



We must remember the key role of protective package. Protective packaging provides the critical cushion protection that keeps energy intensive finished products from being damaged - and landfilled. Expanded polystyrene provides many key protection packaging benefits:

- Absorbs shocks & vibration
- Protects temperature sensitive food and medical shipments
- Lightweight saves fuel during shipping
- Less energy intensive than alternate materials
- Less air/water pollution than alternate materials
- Protects energy intensive products from damage/disposal

## Landfill Facts



## Only after reuse and recycling options have been exhausted should any packaging be landfilled

A comparison of U.S. landfills volume for polystyrene containers and packaging compared to paper and paperboard containers and packaging provides facts about landfill contents<sup>2</sup>.

Polystyrene containers and packaging comprise only 0.2%, while paper and paperboard containers and packaging are responsible for 11%.

The disposal of paper in landfills and subsequent decomposition results in methane gas being released. Methane gas is a greenhouse gas that is over 20 times more effective in trapping heat in the atmosphere than carbon dioxide.

### References

1. Life Cycle Assessment (LCA) of EPS, JEPSRA 2007 <http://www.jepsra.gr.jp/en/environment.html>
2. Municipal Solid Waste in the United States: 2007 Facts and Figures United States Environmental Protection Agency Office of Solid Waste (5306P) EPA530-R-08-010 November 2008

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