



Picture frame made from
recycled
polystyrene



Polystyrene
ASSOCIATION OF SOUTH AFRICA





Polystyrene gets the job done

Polystyrene is extremely **versatile**.

The two forms of polystyrene packaging are:

Expanded Polystyrene (EPS)



EPS

is used to make cups, bowls, plates, trays, clamshells, meat trays and egg cartons as well as protective packaging for shipping electronics and other fragile items.



High Impact Polystyrene (HIPS)



PS / HIPS

a clear General Purpose Polystyrene that is used in products such as cutlery, yogurt and cottage cheese containers, cups, clear salad containers, television sets, computer casings, CD boxes and make-up containers.





Polystyrene

the smart, sustainable solution

- Only about **4%** of **expanded polystyrene** foam packaging is polystyrene, the rest is air.
- **Polystyrene** is greatly superior to other materials when it comes to the creation of **shapes and colours**, making it a creative material to work with.
- **Polystyrene** is the ideal material for **protecting sensitive products** during transport and storage.



Safety without compromise

- **Polystyrene** protects food from bacteria and moisture, guaranteeing quality, a longer shelf life and prevents the spread of disease
- Styrene, the monomer **polystyrene** is manufactured from, is not toxic but a natural product found in many foodstuffs including strawberries, beans, wine and coffee beans
- Extensive research has proven that styrene is perfectly safe for normal use
- **Polystyrene** packaging can come directly into contact with food as it is completely lifeless and meets all the prevailing European Union standards
- **Polystyrene** offers chemical resistance which allows many products to be packed without the goods being affected

3



Everyday convenience



In today's busy lifestyles, it's good to know polystyrene offers **economical and high quality** food packaging products

Polystyrene does not absorb water or vapour, so your **fresh food** stays fresher longer with less need for preservatives

Polystyrene offers **excellent insulation properties**, keeping hot drinks hot and your cold drinks cold

When packed in **polystyrene**, fruits and vegetables retain their **vitamin C** content longer

Polystyrene protects its contents and maintains its strength and shape thus reducing food waste due to spoilage or damaged packaging and leakage

Multiple environmental benefits

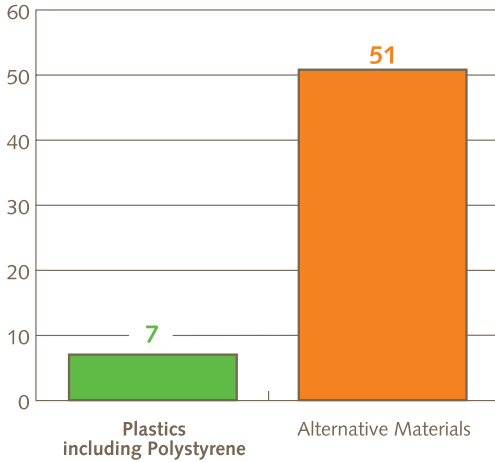
- **Polystyrene** has low weight providing savings in fuel consumption reducing the environmental impact of transporting products
- All packaging leaves an environmental footprint regardless of material type - **polystyrene** packaging uses the least energy and resources to manufacture
- In SA, where electricity is scarce, it's good to know that the amount of electricity used to make **polystyrene** is insignificant
- Because **Polystyrene** cups are the lightest take-away cups, there are fewer air emissions when transporting - one effective way to slow global warming
- **Polystyrene** does not damage the ozone layer since it does not use CFC's (chlorofluorocarbons) in the manufacturing process
- **Polystyrene** is only a by-product of oil conversion - no oil is drilled simply to produce polystyrene



Lower CO₂ emissions

Greenhouse gases emission – GAU study

(CO₂ Equivalents in Million tons/year)



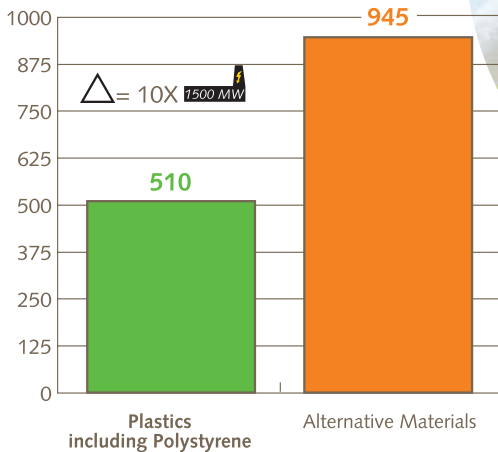
Lower energy consumption

Energy consumption – GAU study

(Production + Use-Phase + Waste in Million Giga Joules/year)

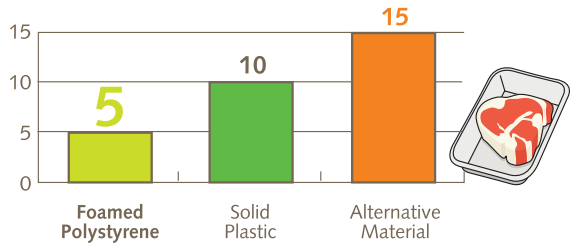
43 Giga Joules = electricity energy produced

by a **1500 MW** power plant output



Weight reduction of packagings and lower consumption of natural resources

The weight of a typical meat packaging (in grams)



Polystyrene contributes to less transport pollution

A yogurt tub made from Polystyrene weighs about 15 times less than containers made from non-plastic materials

Non-plastic material:
36% packaging, 64% product



Polystyrene: 4% packaging, 96% product



An active, thriving market

REDUCE

When a product is packaged in **polystyrene**, only 4 percent of the total weight is the packaging with 96 percent being the product

REUSE

Polystyrene loose fill ("peanuts") is one of the most commonly used reused packaging materials

RECYCLE

Polystyrene is 100 percent recyclable and **IS** being recycled in South Africa

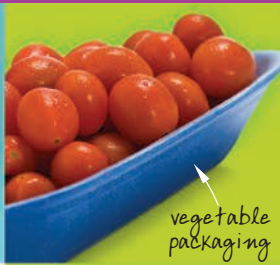
Polystyrene is recycled into various products ...

To sustainably transport **Polystyrene** for recycling it must be compacted or condensed. The **Polystyrene** Packaging Council has set up a list of collection points and buyers for the material and assists in the facilitating of this process. Ensuring that the **Polystyrene** reaches the recycling industry where various products listed are made.



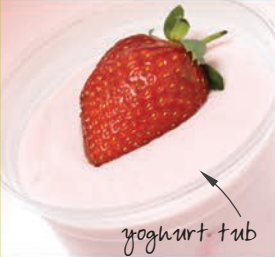
- **Polystyrene** can be recycled up to 20 times without any damage to its physical properties
- In recycling programs we reduce the volume of **Polystyrene** 50 times making it a viable and sustainable product to recycle
- In South Africa **polystyrene** is recycled into various products for example picture frames, coat hangers, seedling trays, cornices, skirtings, outdoor furniture, poles, decking and in construction
- To make up an A4 size certificate frame in a moulding 30mm wide, it would take approximately 45 meat trays or 41 hamburger clamshells or 18 half litre yogurt cups.

Project **Décor**



Clean your polystyrene!

remove all paper, foil and contaminants when separating at source



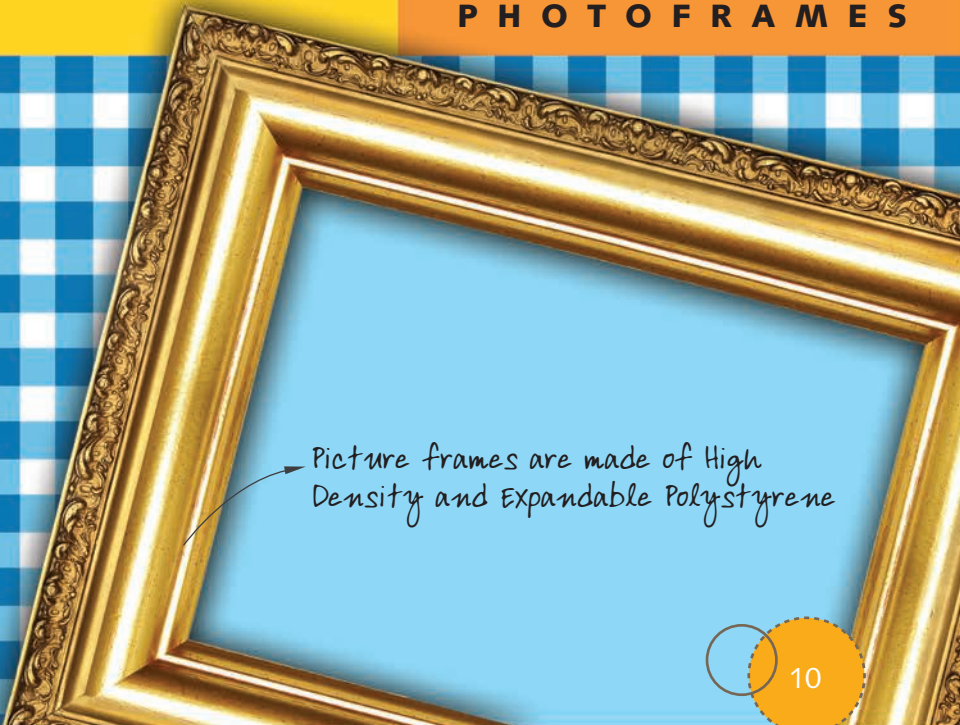
Polystyrene is the number



plastic!



P H O T O F R A M E S



Project **Build**



Clean your polystyrene!
remove all paper, foil and contaminants when separating at source



Polystyrene is the number 6 plastic!



EXPANDABLE POLYSTYRENE RECYCLED INTO

CONSTRUCTION CONSTRUCTION MATERIAL



Project Care

TUTU DESK

Clean your polystyrene!

remove all paper, foil and contaminants when separating at source



salad packaging



take-away cups lid



cookie packaging



yogurt tubs



fruit packaging



plastic cutlery

HIGH DENSITY POLYSTYRENE
RECYCLED INTO

LAP DESKS

High Density Polystyrene

Project Care

BREADTAGS FOR
WHEELCHAIRS

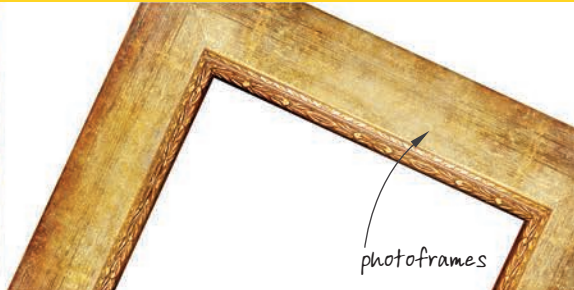
Breadtags are made of High Density Polystyrene



HIGH DENSITY POLYSTYRENE RECYCLED INTO



seedling trays



photoframes

BREADTAG PROJECT



Breadtags
for wheelchairs

Join the breadtag project!
Contact us for more information on the
Breadtag for Wheelchair Project



Project **Beads**

Clean your polystyrene!

remove all paper, foil and contaminants when separating at source



EXPANDABLE POLYSTYRENE
RECYCLED INTO

WONDERBAGS



Contact us for more information about the wonderful properties of polystyrene or should you have any queries about its recycling.



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