

ALS Responsible Approach to Polystyrene Recycling

Sorting plastic waste is essential for its subsequent recycling and minimising environmental impact. Plastics are specific as they exist in various types, each with specific properties and applications. Failure to properly sort these types can render the recycling process impossible, resulting in "mixed plastic waste" being sent for energy recovery.

Polystyrene insulation boxes, used for transporting samples to ALS laboratories, represent one type of waste that requires special attention. If the polystyrene is clean and dry, it can be sent to a processing company for material recycling.



Figure 1: An illustrative image of polystyrene box

The company will recycle the polystyrene, for instance, into building materials or other products, thereby extending its life cycle and reducing the need for oil extraction and processing as a primary raw material. Material recycling is significantly more environmentally friendly than energy recovery.

However, in the context of sustainability, it is vital to focus not only on material recycling but also on waste prevention. In the future, we aim to collaborate with our partners to minimize the use of disposable polystyrene insulation boxes. A sustainable alternative will be reusable cold boxes, which eliminate this type of waste and support the circular economy. This approach aligns with modern ecological trends and contributes to environmental protection.

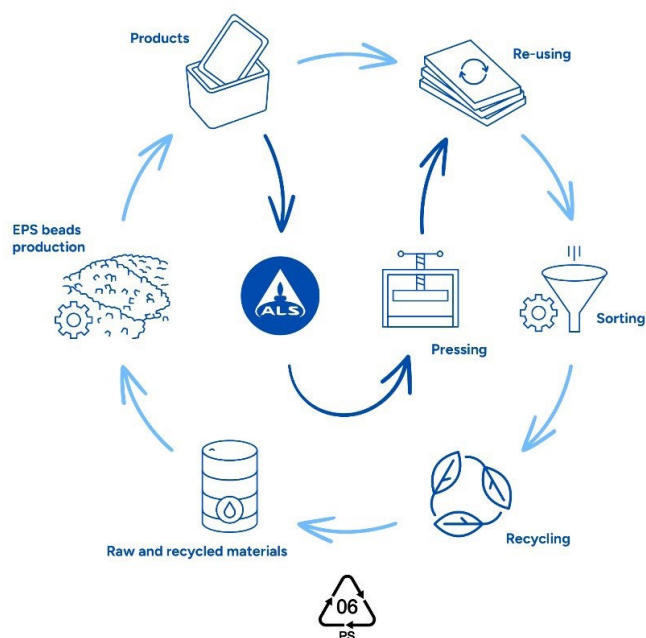


Figure 2: The life cycle of polystyrene

SCAN OR CLICK

Expanded Polystyrene Recycling

ALS Solution

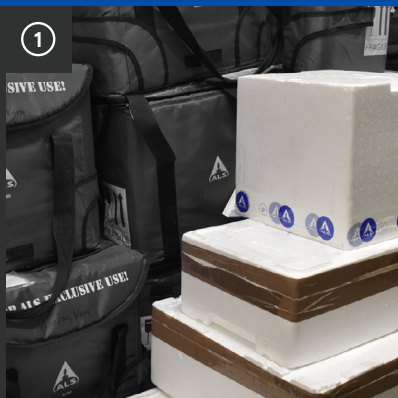
Current situation in ALS Czech Republic



Expanded polystyrene (EPS), due to its low density, is widely utilized in the production of transport packaging boxes (among the other products).

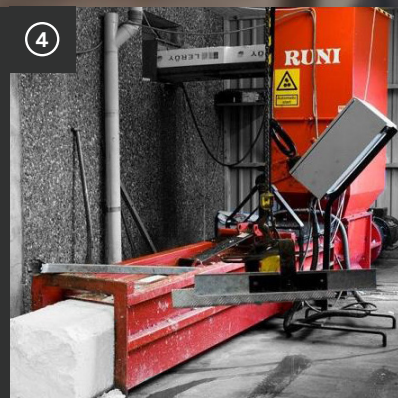
Our clients often use EPS boxes for samples packing, which are then transported to our laboratories.

①



The polystyrene is processed by a screw press, thanks to which the material is compacted up to 50 times.

④



②

All unnecessary packaging material is stacked in large-sized transport bags supplied by the EPS waste processing company.

Figure 2 shows the volume of EPS packaging material collected in only one day. Based on weight, we have to dispose of up to 7 tonnes of EPS per year.



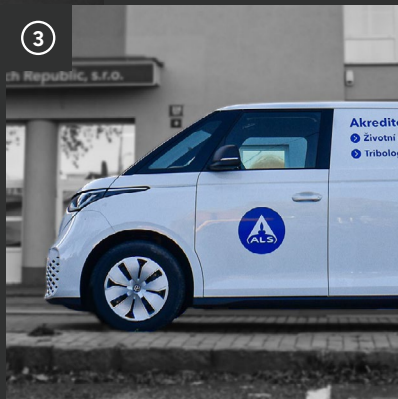
⑤

The final output product of the process is compacted block of polystyrene, which is further recycled or used, for example, in building industry.



③

Bags of EPS waste are transported to the processing company.



We work purposefully and patiently to ensure that as many samples as possible are delivered to ALS in our iconic BLUE shipping bags.

⑥



Towards a more sustainable ALS future.

Figure 3: Process of sorting polystyrene in ALS for further processing