Recycling Information:

Leaflet 3: Expanded Polystyrene Meditherm® (EPS)

Environmental summary
Meditherms® are manufactured from expandable polystyrene granulate (EPS) which is processed to form Meditherm® insulated containers & spacers.

MEDITHERM
Ecological information
Expanded polystyrene has a zero ODP* rating and is not noxious; physically & chemically it is inert. EPS does not biodegrade and leach chemicals into the water system, however small particles may have physical effects on aquatic and terrestrial organisms.

Disposal considerations – options:

Recycling: This should always be the first option if possible. Separation of EPS from other waste streams is important to prevent cross contamination. Failure to do so decreases the ability of EPS to be effectively recycled.

One of the first things a company can do is to take note of just how much waste EPS they produce. Running a trial separating EPS before it goes into a skip may show just how much could, potentially, be recycled. The biggest problem is the energy required to transport EPS to recycling facilities because of the volume. EPS can be as much as 98% air. Compaction reduces volume, transportation and storage costs. Compacted EPS can become a valuable commodity.
To overcome volume problems there are various mechanical methods. These are by compacting, regrinding and extrusion:

- Balers and compactors can compact 15 to 20 tonnes of EPS to 300 to 600 kg/m³;
- Shredders and grinders can regrind one tonne of EPS to 20 to 30 kg/m³;
- EPS densifiers can extrude 25 tonnes down to 500 to 750 kg/m³

To decide which type of equipment to employ depends on volume, running costs and whether a recycler can accept EPS in compacted or non-compacted form. The recycler will normally collect the material once there is a full lorry load.

At the recycling company the EPS is fed into a granulator that chops the material into smaller pieces; it is then blended with similar granules. Finally the material is fed into the extruder where it is melted. Colour can be added and the extruded material is then moulded into a new value added product.

Examples of new products are: ground and blended with virgin EPS bead for blocks and shapes; ground and used in lightweight concrete, insulating renderings, porous bricks, soil improvement and soil aeration; wood substitute – extruded and made into hardwood replacement for garden furniture, window and picture frames; plastic substitute for video/CD cases, coat hangers, plant pots, disposable cameras etc.; beads can be re-gassed to make loose-fill packaging.

Incineration: preferably this is with energy recovery and under approved conditions.

Landfill: Waste EPS is not classified as 'notifiable waste' and may be disposed with other non-hazardous waste destined for licensed landfill sites. The landfill of EPS packaging is the least acceptable waste management method because it represents a missed opportunity to recover

valuable resources. However, EPS is an ideal material for landfill because it remains inert, non-toxic, odour-free and non-biodegradable. Landfill sites are not intended to be compost heaps but to be reclaimed when full. EPS provides stability within landfill sites.

References
A Safety Data Sheet (SDS) can be requested for this product, please contact us by telephone or through our website.

* Ozone depletion potential, releasing gases into air that could contribute to global warming.