

# XPS versus EPS

## Fact sheet

Date: 03/2023

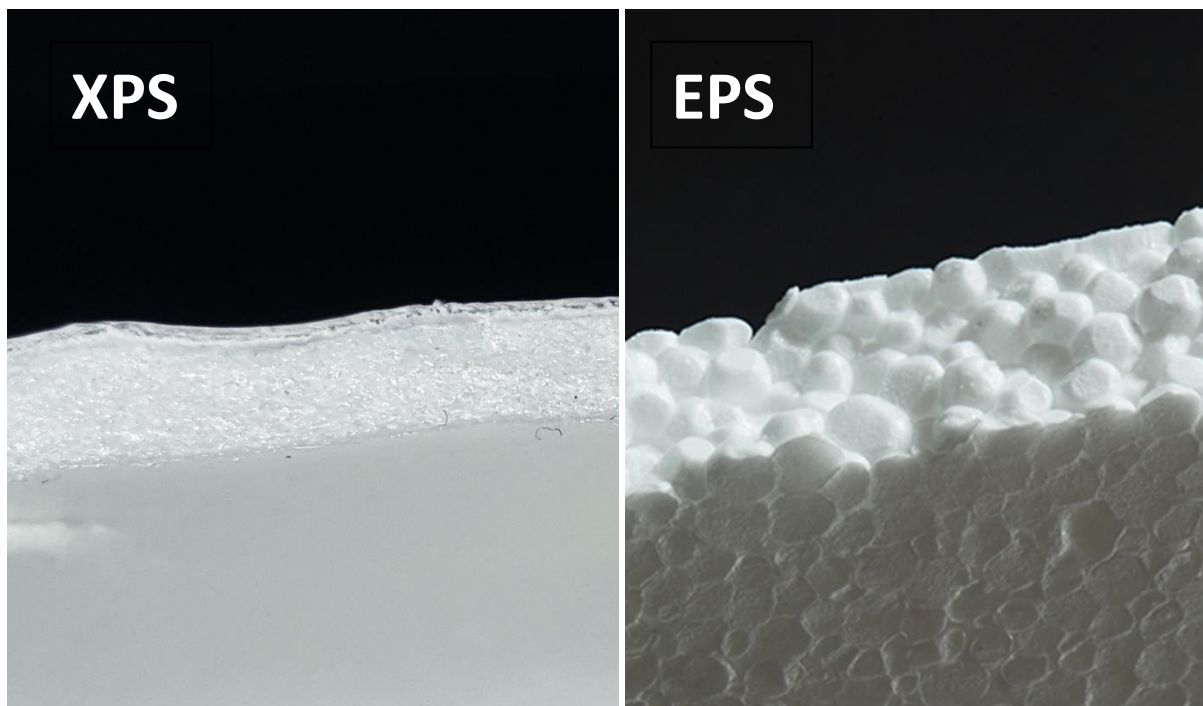
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### Summary



XPS and EPS are two types of polystyrene used in the packaging sector.

As both products are sometimes confused, PLAREBEL developed the following fact sheet to clarify the differences, in terms of production and circularity.

Fost Plus uses this definition for the declaration and green dot fees categorisation.



### Comparison table

	XPS	EPS
<b>Full name</b>	Extruded polystyrene	Expanded polystyrene
<b>Packaging examples</b>	<ul style="list-style-type: none"> <li>• Meat and fish trays</li> <li>• Eggs packaging</li> </ul> 	<ul style="list-style-type: none"> <li>• Transport box for fresh fish</li> <li>• Shock-absorber protection</li> </ul> 
<b>Production</b>	Extrusion of PS pellets with foaming agents and additives to obtain a foam mass	Expansion of PS pellets in steam chamber for inflation  Then, steam fuse moulding to assemble the inflated pellets
<b>End-of-life</b>	<p>Post-consumer plastic packaging waste made out of XPS is collected in Belgium via the new P+MD blue bag</p> <p>When correctly recognised in the sorting centre (e.g. without carbon black), XPS ends up in PS sorted bales</p> <p>As XPS has a different density than HIPS and GPPS, the end-application depends on the recycling facility (e.g. specific separation techniques, type of recycling)</p>	<p>Post-consumer EPS packaging waste is collected in container parcs</p> <p>It has 2 main recycling pathways:</p> <ol style="list-style-type: none"> <li>1. Crushing → densifying → fine shredding → extrusion into rPS pellets</li> <li>2. Crushing → “filling powder” used in different applications</li> </ol>
<b>Green Dot category (Fost Plus)</b>	011-02	014-01