

Advanced Mechanical Recycling of Polystyrene

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Abstract:

Polystyrene turns out to be one of the best recyclable polymers. The material can be recycled via traditional mechanical recycling as well as via a broad range of more sophisticated recycling technologies. This makes polystyrene an ideal candidate for a circular economy. The range of recycling technologies allow addressing every waste stream and every use case. Polystyrene is the material of choice for a range of food packaging solutions. Last, but not least, polystyrene is the ideal material for the dairy industry to be used for yoghurt pots and other products. INEOS Styrolution has brought a first solution to market based on advanced mechanical recycling that comes with a food contact statement. This is requires high-end sorting and intense washing followed by a super clean process being submitted to EFSA as novel technology.

In this presentation, it will be explained what makes polystyrene stand out from other polymers. Also, the individual steps of the process to produce mechanically recycled polystyrene at food contact level will be explained in detail.