

Mechanical recycling of polyamides in multilayer film structures

BASF welcomes reclassification of recyclability of coextruded polyethylene/polyamide film structures

The „Stiftung Zentrale Stelle Verpackungsregister“ (Central Agency Packaging Register) has reclassified the recyclability of polyamides in the minimum standard for assessing the recyclability of packaging subject to system participation pursuant to Section 21 (3) VerpackG: Since September 1, coextruded polyethylene (PE)/polyamide (PA) film structures have been recognized as mechanically recyclable. Institute cyclos-HTP GmbH has proven and certified the recyclability of polyamide 6 (PA6, Ultramid® B) as well as Polyamide 6/6.6 (PA6/6.6, Ultramid® C) in coextruded polyethylene (PE)/PA6-multilayer film structures for the PE film stream. This was analyzed for PA contents of up to 30 percent in the original packaging based practice-relevant conditions.

The research details and results related to this work have been summarized in an updated publication to provide detailed answers to a wide range of questions on this issue. This publication is available for download.



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Why is this topic important?

Due to the currently **very pronounced focus on the mechanical recycling of packaging waste** from households and here on the so-called „**monomaterials**“ **desired by the recycling industry and politics**, the advantages of polyamides for high-performance and flexible packaging are being pushed into the background.



Certain criteria, **such as the reduction of the used plastic due to lower material thicknesses („downgauging“), the associated reduction in plastic waste volumes or the improved utilization of foodstuffs due to extended shelf life in barrier packaging with polyamide, are not adequately taken into account.** Yet these criteria play an important role when it comes to supplying food to a continuously growing world population and reducing packaging waste and food waste.



The currently realized update concerning compatibility of coextruded PE/PA multilayer films in the category “LDPE and films” of “Minimum standard for determining the recyclability of packaging subject to system participation pursuant to section 21 (3) VerpackG of ZSVR in **Germany is a first and extremely important step to consider the advantages of PA containing packaging structures** as well as the latest state-of-technology in terms of recyclability of Polyamides into legislation basics. Due to the fact, that there are a lot of things to do, especially with **focus to the still ongoing finalization of EU legislation**, we as BASF will continue to **work and argue for a serious categorization of Polyamides in flexible packaging structures.**

